SUPERFUND EXPANSION AND PROTECTION ACT OF 1984

HEARING

BEFORE THE

COMMITTEE ON WAYS AND MEANS
HOUSE OF REPRESENTATIVES

NINETY-EIGHTH CONGRESS

SECOND SESSION

ON

H.R. 5640

TO AMEND THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980

JULY 25, 1984

Serial 98–95

Printed for the use of the Committee on Ways and Means

U.S. GOVERNMENT PRINTING OFFICE
39-772 O WASHINGTON : 1985

H781-21

COMMITTEE ON WAYS AND MEANS

DAN ROSTENKOWSKI, Illinois, *Chairman*

SAM M. GIBBONS, Florida
J. J. PICKLE, Texas
CHARLES B. RANGEL, New York
FORTNEY H. (PETE) STARK, California
JAMES R. JONES, Oklahoma
ANDY JACOBS, Jr., Indiana
HAROLD FORD, Tennessee
ED JENKINS, Georgia
RICHARD A. GEPHARDT, Missouri
THOMAS J. DOWNEY, New York
CECIL (CEC) HEFTEL, Hawaii
WYCHE FOWLER, Jr., Georgia
FRANK J. GUARINI, New Jersey
JAMES M. SHANNON, Massachusetts
MARTY RUSSO, Illinois
DON J. PEASE, Ohio
KENT HANCE, Texas
ROBERT T. MATSUI, California
BERYL ANTHONY, Jr., Arkansas
RONNIE G. FLIPPO, Alabama
BYRON L. DORGAN, North Dakota
BARBARA B. KENNELLY, Connecticut

BARBER B. CONABLE, Jr., New York
JOHN J. DUNCAN, Tennessee
BILL ARCHER, Texas
GUY VANDER JAGT, Michigan
PHILIP M. CRANE, Illinois
BILL FRENZEL, Minnesota
JAMES G. MARTIN, North Carolina
RICHARD T. SCHULZE, Pennsylvania
BILL GRADISON, Ohio
W. HENSON MOORE, Louisiana
CARROLL A. CAMPBELL, Jr., South Carolina
WILLIAM M. THOMAS, California

John J. Salmon, *Chief Counsel*
Joseph K. Dowley, *Assistant Chief Counsel*
Robert J. Leonard, *Chief Tax Counsel*
A. L. Singleton, *Minority Chief of Staff*

CONTENTS

	Page
Press release announcing the hearing	2
H.R. 5640, text and background material	4

WITNESSES

Department of the Treasury, John E. Chapoton, Assistant Secretary for Tax Policy	160
Environmental Protection Agency, Lee M. Thomas, Assistant Administrator for Solid Waste and Emergency Response; A. James Barnes, General Counsel; William Hedeman, Director, Office of Emergency and Remedial Response; Gene Lucero, Director, Office of Waste Programs Enforcement; and John Skinner, Director, Office of Solid Waste	174

Allied Chemical Sector, Allied Corp., Alan Belzer	499
Aluminum Association, Inc., John C. Bard	574
AMAX Environmental Services, Inc., and AMAX, Inc., Louis J. Marucheau	608
American Independent Refiners Association, Charles P. Eddy	490
American Petroleum Institute, William K. Tell, Jr.	424
ARCO Chemical Co., John J. Schmidt	544
ASARCO, Inc., Robert J. Muth	642
Atlantic Richfield Co., John P. Schmidt	544
Bard, John C., Aluminum Association, Inc	574
Battery Council International, Edward G. Taylor and Robert H. Wilbur	570
Bauer, R.J., Washington Conference for Zinc, Inc	581
Belzer, Alan, Allied Chemical Sector, Allied Corp	499
B.F. Goodrich Chemical Group, Bart A. DiLiddo	573
Bliley, Hon. Thomas J., Jr., a Representative in Congress from the State of Virginia	152
Blower, Kenneth E., Standard Oil Co. of Ohio	552
Cadence Chemical Resources, Inc., R. Sarah Compton	593
Chemical Manufacturers Association, Edwin C. Holmer	350
Chlorine Institute, Bart A. DiLiddo	573
Compton, R. Sarah, LTV Steel Corp. and Cadence Chemical Resources, Inc	593
Crown Central Petroleum Corp., Edwin P. Mampe, Jr	537
Daniell Battery Manufacturing Co., Edward G. Taylor	570
DiLiddo, Bart A., Chlorine Institute, and B.F. Goodrich Chemical Group	573
Early, A. Blakeman, Sierra Club and Izaak Walton League of America	403
Eddy, Charles P., Tosco Corp., and American Independent Refiners Association	490
El Paso Products Co., G.W. Read	589
Energy Recovery and Conservation Association, Mark J. Riedy	458
Exxon Chemical Co., Edwin C. Holmer	350
Florio, Hon. James J., a Representative in Congress from the State of New Jersey, and chairman, Subcommittee on Commerce, Transportation, and Tourism, Committee on Energy and Commerce	116
Fortuna, Richard C., Hazardous Waste Treatment Council	215
Hartlage, James, Stepan Co	521
Hazardous Waste Treatment Council, Richard C. Fortuna	215
Hoffman, Howard J., Washington, DC	309
Holmer, Edwin C., Exxon Chemical Co., and Chemical Manufacturers Association	350
Institute of Chemical Waste Management, Suellen W. Pirages	444
Izaak Walton League of America, A. Blakeman Early	403
Kennedy, Robert D., Union Carbide Corp	496

Page
Lang, Ronald A., Synthetic Organic Chemical Manufacturers Association 597
Louisiana Land & Exploration Co., Donald P. Mitchell 649
LTV Steel Corp., R. Sarah Compton 593
Mampe, Edwin P., Jr., Crown Central Petroleum Corp 537
Marucheau, Louis J., AMAX Environmental Services, Inc 608
Merrigan, Edward L., National Association of Recycling Industries, Inc 420
Mitchell, Donald P., Louisiana Land & Exploration Co 649
Monsanto Co., Richard A. Overton 514
Mraz, Paul J., Spectron, Inc., and National Association of Solvent Recyclers 463
Muth, Robert J., ASARCO, Inc 642
National Association of Manufacturers, H. Richard Seibert 345
National Association of Recycling Industries, Inc., Edward L. Merrigan 420
National Association of Solvent Recyclers, Paul J. Mraz 463
National Petroleum Refiners Association, Urvan R. Sternfels 540
Overton, Richard A., Monsanto Co 514
Pirages, Suellen W., Institute of Chemical Waste Management 444
Read, G.W., El Paso Products Co 589
Riedy, Mark J., Energy Recovery and Conservation Association 458
Schmidt, John, ARCO Chemical Co., and Atlantic Richfield Co 544
Schneider, Hon. Claudine, a Representative in Congress from the State of Rhode Island 154
Secondary Lead Smelters Association, Homer H. Woodruff, Jr 601
Seibert, H. Richard, National Association of Manufacturers 345
Sierra Club, A. Blakeman Early 403
Spectron, Inc., Paul J. Mraz 463
Standard Oil Co. of Ohio, Kenneth E. Blower 552
Stepan Co., James Hartlage 521
Sternfels, Urvan R., National Petroleum Refiners Association 540
Synthetic Organic Chemical Manufacturers Association, Ronald A. Lang 597
Taylor, Edward G., Daniell Battery Manufacturing Co., and Battery Council International 570
Tell, William K., Jr., Texaco, Inc., and American Petroleum Institute 424
Texaco, Inc., William K. Tell, Jr 424
Tosco Corp., Charles P. Eddy 490
Union Carbide Corp., Robert D. Kennedy 496
Washington Conference for Zinc, Inc., R.J. Bauer 581
Wilbur, Robert H., Battery Council International 570
Woodruff, Homer H., Jr., Secondary Lead Smelters Association 601
Wyden, Hon. Ron, a Representative in Congress from the State of Oregon 170

SUBMISSIONS FOR THE RECORD

American Iron & Steel Institute, E.F. Young, Jr., letter 654
American Mining Congress, J. Allen Overton, letter and attachments 655
Ashland Oil, Inc., statement 664
Automotive Service Industry Association, Richard F. Turney, letter and attachment 668
Celanese Corp., statement 670
Diamond Shamrock Corp., statement 672
El Paso Products Co., O.R. Clements, letter 674
Fertilizer Institute, Gary D. Myers, letter 674
Inland Steel Co., Francis O. McDermott, letter 675
National Association of Printing Ink Manufacturers, Inc., James E. Renson, letter 676
Saber Energy, Inc., Martin P. Zanotti, letter 678
Society of Independent Gasoline Marketers of America, statement 680
Solite Corp., Louis R. Lawson, Jr., statement 651
Sun Refining & Marketing Co., J.V.D. Fear, letter 684
United States Borax & Chemical Corp., statement forwarded by Congressman William M. Thomas 684

SUPERFUND EXPANSION AND PROTECTION ACT OF 1984

WEDNESDAY, JULY 25, 1984

House of Representatives,
Committee on Ways and Means,
Washington, DC.

The committee met at 10 a.m., pursuant to notice, in room 1100, Longworth House Office Building, Hon. Sam Gibbons presiding.

Mr. Gibbons. Good morning ladies and gentlemen, let's take our seats. This is a busy legislative day and we don't have much time to waste.

As you know this is a meeting of the Ways and Means Committee. Today we will hear testimony on H.R. 5640, the Superfund Expansion and Protection Act of 1984. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 established a comprehensive system to clean up and assure liability coverage for hazardous spills and wastesites. To fund this program, the 1980 act imposed an excise tax on crude oil and certain chemicals as well as an excise tax on disposal of certain wastes.

These taxes will terminate on October 1, 1985. H.R. 5640 as reported by the Committee on Energy and Commerce would continue and expand the Superfund Program by providing additional funding for the trust fund through September 30, 1990. Much of the substantive review of the necessity for reauthorization and expansion of the Superfund Program has been undertaken by the Committee on Energy and Commerce. That committee has spent most of this Congress developing H.R. 5640. While there is some controversy over some substantive provisions of this bill, it is clear that the revenue increases provided in the bill are not unreasonable. All parties agree that the cost of cleaning up the Nation's Superfund sites will far exceed the original estimate made in 1980.

The task of this committee is not to undo the fragile elements necessary to clean up the serious hazardous waste problems in our country, rather the task of this committee is to assure that the taxes that are earmarked for the Superfund are adequate and equitable.

This committee invites suggestions to improve the basis for raising the revenue necessary to fund the massive cleanup program anticipated under the bill that we have under discussion.

It should be noted, however, that in order for the House of Representatives to consider this important legislation before the Labor Day district work period, the Committee on Ways and Means must act expeditiously. Consequently, it is the chairman's intention to schedule a markup on H.R. 5640 within the next week.

Today we will hear from a large number of witnesses regarding many aspects of H.R. 5640. I urge each witness to summarize your written statement. The full written statement will be placed in the hearing record. Also, without objection, the press release announcing today's hearing will be included in the record.

[The press release announcing the hearing and the text and background material of H.R. 5640 follow:]

[Press release No. 23, Monday, July 2, 1984]

THE HONORABLE DAN ROSTENKOWSKI (D., ILL.), CHAIRMAN, COMMMITTEE ON WAYS AND MEANS, U.S. HOUSE OF REPRESENTATIVES, ANNOUNCES A PUBLIC HEARING TO CONSIDER H.R. 5640, THE SUPERFUND EXPANSION AND PROTECTION ACT OF 1984

The Honorable Dan Rostenkowski (D., Ill.), Chairman of the Committee on Ways and Means, U.S. House of Representatives, today announced that the Committee will hold a public hearing on H.R. 5640, the Superfund Expansion and Protection Act of 1984, on Wednesday, July 25, 1984, beginning at 10:00 a.m. in the Committee's main hearing room, 1100 Longworth House Office Building.

In 1980, the Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (P.L. 96-510) which established a comprehensive Federal program to clean up hazardous waste sites and releases of hazardous substances into the environment. The 1980 legislation established two trust funds to assist with this clean up process, the Hazardous Substance Response Trust Fund (Superfund) and the Post-Closure Liability Trust Fund.

Revenues from a tax of 0.79 cents per barrel of crude oil and a tax on taxable chemicals, imposed through September 30, 1985, are dedicated to the Response Trust Fund. Amounts in the Response Trust Fund are available for certain hazardous substance clean up and related costs.

The Post Closure Liability Trust Fund is funded through an excise tax on the receipt of hazardous waste at a qualified hazardous waste disposal facility. The fund can be used to monitor, care for, and maintain certain waste disposal facilities for which liability has been transferred to the Federal government.

H.R. 5640, as introduced, reauthorizes the Superfund program, increases the current tax of petroleum to 4.5 cents per barrel from October 1, 1985, through September 30, 1990; repeals the Post-Closure Liability Trust Fund and the related taxes; imposes a new tax on the disposal of certain hazardous substances; revises and increases the tax on feedstock chemicals; and amends the Hazardous Substance Response Trust Fund.

H.R. 5640, introduced in the House of Representatives on May 10, 1984, was referred to the Committee on Ways and Means; the bill was also referred to the Committees on Energy and Commerce and Public Works and Transportation for a period ending not later than July 24, 1984. The Committee on Ways and Means has scheduled its public hearing to commence after the time for the two other committees to act has expired, so that the public testimony can include comments on actions taken by the other committees. In announcing this hearing, Chairman Rostenkowski stated, "I hope to provide sufficient time for the Committee on Ways and Means to adequately study the many complex aspects of H.R. 5640. However, I want to clearly state my intentions to schedule action by the Ways and Means Committee as soon as reasonably possible after the public hearing so that this legislation can be considered by the House of Representatives before August 10, 1984." The hearing will focus on all aspects of H.R. 5640 within the jurisdiction of the Committee on Ways and Means.

DETAILS FOR SUBMISSION OF REQUESTS TO BE HEARD

Individuals and organizations interested in presenting oral testimony before the Committee must submit their requests to be heard in writing no later than close of business Thursday, July 19, 1984, to John J. Salmon, Chief Counsel, Committee on Ways and Means, U.S. House of Representatives, 1102 Longworth House Office Building, Washington, D.C. 20515.

It is urged that persons and organizations having a common position make every effort to designate one spokesman to represent them in order for the Committee to hear as many points of view as possible. Time for oral presentations will be strictly limited with the understanding that a more detailed statement may be included in the printed record of the hearing. This process will afford more time for members to question witnesses. In addition, witnesses may be grouped as panelists with strict time limitations for each panelist.

In order to assure the most productive use of the limited amount of time available to question hearing witnesses, witnesses scheduled to appear before the Committee are required to submit 200 copies of their prepared statements to the Committee office, room 1102 Longworth House Office Building, at least 24 hours in advance of their scheduled appearances. Failure to comply with this requirement may result in the witness being denied the opportunity to testify in person.

Requests to be heard must contain the following information:

1. The name, full address, and capacity in which the witness will appear, as well as a telephone number where the witness or a designated representative may be reached;
2. A list of any clients or persons, or any organization for whom the witness appears; and
3. A topical outline or summary of comments and recommendations.

The above information should also be incorporated in the prepared statements to be presented in person as well as those filed for the printed record of the hearing.

WRITTEN STATEMENTS IN LIEU OF PERSONAL APPEARANCE

Persons submitting written statements for the printed record of the hearing should submit at least six (6) copies by the close of business, Monday, July 30, 1984, to John J. Salmon, Chief Counsel, Committee on Ways and Means, U.S. House of Representatives, 1102 Longworth House Office Building, Washington, D.C. 20515. If those filing written statements for the record of the printed hearing wish to have their statements distributed to the press and the interested public, they may provide 100 additional copies for this purpose to the Committee office before the hearing begins.

I

98TH CONGRESS
2D SESSION

H. R. 5640

To amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

IN THE HOUSE OF REPRESENTATIVES

MAY 10, 1984

Mr. FLORIO (for himself, Mr. DINGELL, Mr. ROE, Mr. HOWARD, Mr. ECKART, Ms. MIKULSKI, Mr. LENT, Mr. RITTER, Mr. MARKEY, Mr. WYDEN, Mr. GORE, Mr. OTTINGER, Mr. WAXMAN, Mr. SWIFT, Mr. MADIGAN, Mrs. SCHNEIDER, Mr. MOLINARI, Mr. TOWNS, Mr. MOODY, Mr. EDGAR, Mr. SHANNON, Mr. MATSUI, Mr. DOWNEY of New York, Mr. GUARINI, Mr. STARK, Mr. WOLPE, Mr. FAZIO, Mr. D'AMOURS, Mr. FRANK, Mr. MINISH, Mr. NELSON of Florida, Mrs. ROUKEMA, Mr. STUDDS, Mr. MORRISON of Connecticut, Mr. TORRES, and Mr. JEFFORDS) introduced the following bill; which was referred to the Committees on Energy and Commerce and Public Works and Transportation for a period ending not later than July 24, 1984; and referred to the Committee on Ways and Means

---

A BILL

To amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE AND TABLE OF CONTENTS

SECTION 1. This Act, together with the following table of contents, may be cited as the "Superfund Expansion and Protection Act of 1984.".

TABLE OF CONTENTS

Sec. 1. Short title and table of contents.
Sec. 2. Amendment of CERCLA.
Sec. 3. Findings and objectives.

TITLE I—PROVISIONS RELATING PRIMARILY TO RESPONSE AND LIABILITY

Sec. 101. Petroleum exclusion.
Sec. 102. Coverage of pollutants and contaminants.
Sec. 103. Reportable quantities.
Sec. 104. Penalties.
Sec. 105. Response authorities.
Sec. 106. State agreements.
Sec. 107. Mandatory cleanup standards.
Sec. 108. Information gathering and access authorities.
Sec. 109. Toxicological profiles.
Sec. 110. Public participation.
Sec. 111. Mandatory schedule.
Sec. 112. Petition for health effects studies; emergency relief.
Sec. 113. National contingency plan.
Sec. 114. Abatement actions.
Sec. 115. Liability.
Sec. 116. Uses of fund.
Sec. 117. Statute of limitations.
Sec. 118. Relationship to other law.

TITLE II—FEDERAL CAUSE OF ACTION

Sec. 201. Definitions.

Subtitle A—Federal Cause of Action

Sec. 202. Liability.
Sec. 203. Compensable damages.
Sec. 204. Jurisdiction; costs of litigation.
Sec. 205. State law.

Subtitle B—General Provisions

Sec. 211. Limitations.
Sec. 212. Worker's compensation.

TITLE III—MISCELLANEOUS PROVISIONS

Sec. 301. Citizen suits.

TITLE IV—REGULATION OF UNDERGROUND STORAGE TANKS

Sec. 401. Definitions.
Sec. 402. Notification.
Sec. 403. Release detection, preventation, and correction regulations.
Sec. 404. Approval of State programs.
Sec. 405. Inspections, monitoring, and testing.
Sec. 406. Federal enforcement.
Sec. 407. Federal facilities.
Sec. 408. State authority.

Sec. 409. Study of exempted underground storage tanks.

TITLE V—AMENDMENTS OF INTERNAL REVENUE CODE OF 1954

Sec. 501. Tax on petroleum.
Sec. 502. Repeal of post-closure tax and fund.
Sec. 503. Waste end tax.
Sec. 504. Amendments relating to environmental tax on certain chemicals.
Sec. 505. Amendments relating to hazardous substance response trust fund.

AMENDMENT OF CERCLA

Sec. 2. Except as otherwise expressly provided in this Act, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be a reference to a section or other provision of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601).

FINDINGS AND OBJECTIVES

Sec. 3. The Congress finds that in order to adequately protect human health and the environment from hazardous substances, pollutants, and contaminants it is necessary to—

(1) continue a comprehensive Federal program to clean up hazardous waste sites and releases or threatened releases of hazardous substances, pollutants, and contaminants into the environment;

(2) establish uniform national cleanup standards ensuring attainment of levels of protection required by the Solid Waste Disposal Act (as amended by the Re-

source Conservation and Recovery Act) and all other applicable Federal environmental laws;

(3) establish a stringent, mandatory schedule for cleanup of the Nation's worst hazardous waste sites;

(4) strengthen existing enforcement authority so that responsible parties will assume financial responsibility for either conducting cleanup or reimbursing the government for its cleanup costs;

(5) establish new Federal liability standards for injuries suffered by exposed individuals;

(6) create a viable and effective Federal-State partnership for the cleanup effort; and

(7) provide emergency assistance and an opportunity to participate in the cleanup process for citizens affected by hazardous substances.

TITLE I—PROVISIONS RELATING PRIMARILY TO RESPONSE AND LIABILITY

PETROLEUM EXCLUSION

SEC. 101. (a) Section 101(14) is amended by striking out ", and the term does not include natural gas, natural gas liquids," and substituting "; except that the term hazardous substance shall include (in addition to the substances specifically listed or designated under subparagraphs (A) through (F)) any petroleum (including crude oil or any fraction thereof)—

"(i) which is released from an underground storage tank (as defined in title IV of the Superfund Expansion and Protection Act of 1984); or

"(ii) which may present a significant risk to human health;

and the term does not include natural gas, natural gas liquids, propane,".

COVERAGE OF POLLUTANTS AND CONTAMINANTS

SEC. 102. (a)(1) Section 101 is amended by inserting striking out "and" at the end of paragraph (31), by striking out the period at the end of paragraph (32) and substituting "; and" and by adding the following new paragraph at the end thereof:

"(33) 'pollutant or contaminant' shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except in the case of a release from an underground storage tank as defined in title IV of the Superfund Expansion and Protection Act of 1984, the term 'pollutant or contaminant' shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) and section 101(A); and the term 'pollutant or contaminant' shall not include natural gas, natural gas liquids, propane, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas)".

(2) Section 104(a) is amended by striking out "(1)" and by striking out paragraph (2).

(b)(1) The following provisions are each amended by inserting "or pollutant or contaminant" after "hazardous substance" in each place it appears: paragraphs (9), (20), (24), and (26) of section 101, subsection (a) of section 106, paragraph (4) of section 107(a), subsections (b), (c), (d), (f), and (j) of section 107, section 111(b), paragraphs (1), (2), and (6) of section 111(c), paragraph (1) of section 111(d), paragraph (1) of section 111(h), subection (a) of section 112, and subsection (d) of section 113.

(2) The following provisions are each amended by inserting "or pollutants or contaminants" after "hazardous substances" in each place it appears: paragraphs (10), (23), and (24) of section 101, subsection (c)(1) and (e)(1) of section

104, paragraphs (1) and (8) of section 105, so much of section 105 as follows paragraph (9) thereof, paragraphs (2), (3), and (4) of section 107(a), subsection (c)(1)(C) of section 107, and paragraphs (3) and (6) of section 111(c).

REPORTABLE QUANTITIES

SEC. 103. The second sentence of section 102(a) is amended by striking out "may determine that" and substituting "shall, within 6 months after the enactment of the Superfund Expansion and Protection Act of 1984, promulgate regulations establishing that".

PENALTIES

SEC. 104. (a)(1) Section 103(b)(3) is amended by striking out "$10,000 or imprisoned for not more than one year" and substituting "$50,000 or imprisoned for not more than 3 years".

(2) Section 103(b)(3) is amended by adding the following before the last sentence thereof: "Any such person shall also be subject to a civil penalty of not more than $25,000 for each day during which such failure continues."

(3) Section 103(d)(2) is amended by striking out "$20,000, or imprisoned for not more than one year or both." and substituting "$50,000 or imprisoned for not more than three years or both. Any such person shall also be subject to a civil penalty of not more than $25,000 for each day during which such violation continues."

(b) Section 104(e)(2) is amended by adding the following at the end therof:

"(E) Any person who fails or refuses to comply with a request under this subsection shall be subject to a civil penalty of not more than $25,000 for each day during which such failure or refusal continues.".

(c) Section 106(b) is amended by striking out "$5,000" and substituting "$25,000".

(d) Section 109 is amended by striking out "$10,000" and substituting "$25,000".

(e) Section 112(b)(1) is amended by striking out "$5,000 or imprisoned for not more than one year" and substituting "$50,000 or imprisoned for not more than 3 years".

RESPONSE AUTHORITIES

SEC. 105. (a)(1) Section 104(a)(1) is amended by striking out "unless the President determines" and all that follows down through the period and substituting the following: "Any removal action undertaken by the Administrator under this subsection (or by any other person referred to in paragraph (2)) with respect to any release or threat of release shall be consistent, to the extent practicable, with any long term remedial action with respect to such release or threatened release."

(2) Section 104(a)(2) is amended to read as follows:

"(2) The Administrator is authorized to undertake any response action under this subsection unless the Administrator determines that such action will be done properly by the owner or operator of the facility from which the release or threatened release emanates, or by any other responsible party."

(b) Section 104(b) is amended by adding the following at the end thereof: "Whenever the Administrator undertakes any information gathering or planning under this subsection, he shall, to the maximum extent possible, assess the risk to human health associated with the release or threatened release.".

STATE AGREEMENTS

SEC. 106. Section 104(c) is amended by striking out paragraph (3) and substituting the following:

"(3) The Administrator shall not provide any remedial actions pursuant to this section unless the State in which the release or threatened release occurs first enters into a contract or cooperative agreement with the Administrator providing assurances deemed adequate by the Administrator that—

"(A) for any necessary offsite storage, destruction, treatment, or secure disposition of hazardous substances, pollutants, or contaminants the State will assure the availability of a hazardous waste disposal facility which is acceptable to the Administrator and which complies with the requirements of subtitle C of the Solid Waste Disposal Act; and

"(B) the State will pay or assure payment of—

"(i) 10 per centum of the costs of the remedial action and 10 per centum of all future operation and maintenance costs of any onsite remedial action, or

"(ii) at least 50 per centum (or such greater amount as the Administrator may determine appropriate, taking into account the degree of responsibility of the State or political subdivision) of—

"(I) any sums expended in response to a release or threatened release at a facility that was owned and operated at the time of any disposal of hazardous substances, pollutants, or contaminants therein by the State or a political subdivision thereof, and

"(II) all future operation and maintenance costs of any onsite remedial action.

The Administrator shall grant the State a credit for amounts expended or obligated by such State or by a political subdivision thereof after January 1, 1978, and before December 11, 1980, for any response action costs which are covered by section 111 and which were incurred at a release listed pursuant to section 105. In the case of any State which has paid, pursuant to a contract or cooperative agreement under this section at any time after December 11, 1980 but before the date of the enactment of the Superfund Expansion and Protection Act of 1984, in excess of 10 percent of the costs of remedial action at a facility owned, but not operated, by such State or by a political subdividison thereof, the Administrator shall use money in the Fund to provide a credit to such State for the amount of such excess. Any amount expended by a State for reasonable administrative expenses in carrying out any provision of this Act shall be credited against the 10 per centum share referred to in clause (i).".

MANDATORY CLEANUP STANDARDS

SEC. 107. Section 104(c)(4) is amended to read as follows:

"(4)(A) The Administrator shall select appropriate cost-effective remedial actions determined to be necessary to carry out this section. Such actions shall be in accordance with the National Contingency Plan, to the extent practicable, and shall be in accordance with the requirements of subparagraph (B). In evaluating the cost-effectiveness of a remedial action, the Administrator shall consider permanent solutions and alternative treatment technologies to the maximum extent practicable.

"(B)(i) The remedial action selected under this paragraph or secured under section 106(a) for a facility in any State at which a release or threatened release occurs shall require that level or standard of control of each hazardous substance, pollutant, and contaminant at that facility which is necessary to protect human health and the environment.

"(ii) If any—

"(I) standard under one or more provisions of the Toxic Substances Control Act, the Safe Drinking Water Act, the Clean Air Act, the Clean Water Act, or

"(II) water quality criteria under any provision of the Clean Water Act

is applicable to the hazardous substance, pollutant, or contaminant concerned, the remedial action selected under this paragraph or secured under section 106(a) shall require a level or standard of control for such hazardous substance, pollutant, or contaminant which is equivalent to whichever of such standards or criteria the Administrator determines to be most stringent.

"(iii) Where the remedial action taken under this subtitle at any facility does not include the removal of all hazardous substances, pollutants, and contaminants from such facility, any remedial action providing for the containment of any such substance, pollutant, or contaminant at such facility shall comply with the standards applicable to facilities required to obtain permits under section 3005 of the Solid Waste Disposal Act.

"(iv) The Administrator may waive the application of the requirements of clauses (ii) and (iii) with respect to any facility and select alternative remedial action which does not comply with such requirements if the Administrator finds that such alternative remedial action—

"(I) will provide protection of human health and the environment substantially equivalent to the remedial action which would be necessary to comply with such requirements; or

"(II) compliance with the requirements of clauses (ii) and (iii) at that facility will consume such a disproportionate share of the Fund resources as to have the effect of deferring or preventing remedial action at other facilities which pose a significantly greater threat to human health and the environment.

"(v) No permit shall be required under Federal, State, or local law for any removal or remedial action undertaken by any person pursuant to this Act at the location of the release or threatened release.

"(vi) Notwithstanding any other provision of law or rule of law, the Administrator may establish the exclusive administrative procedures for making any determination under this subsection.".

INFORMATION GATHERING AND ACCESS AUTHORITIES

SEC. 108. Section 104(e)(1) is amended to read as follows:

"(e)(1)(A) For purposes of assisting in determining the need for response to a release or threatened release under this Act or enforcing the provisions of this Act—

"(i) any person who generates, stores, treats, recycles, or disposes of, or

"(ii) where necessary to ascertain facts not available at the facility where hazardous substances or pollutants or contaminants are located, any person who generates, stores, treats, recycles, transports, disposes of, or otherwise handles or has handled,

hazardous substances or pollutants or contaminants or substances which may have been hazardous shall, upon request of any officer, employee, or representative of the Administrator, duly designated by the Administrator, or upon request of any duly designated officer, employee, or representative of a State, where appropriate, furnish information relating to such substances or pollutants or contaminants, including samples of such substances or pollutants or contaminants, and samples of any containers or labels for such substances or pollutants or contaminants, and permit such person to have access to, and to copy all records relating to such substances or pollutants or contaminants. Each such inspection shall be commenced and completed with reasonable promptness and at reasonable times. If the officer, employee, or representative obtains any samples, prior to leaving the premises, he shall give to the owner, operator, or person in charge a receipt describing the sample obtained and, if requested, a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, a copy of the results of such analysis shall be furnished promptly to the owner, operator, or person in charge. The Administrator may also take such other action under this subsection, including but not limited to issuing orders requiring submission of information or samples, as may be necessary to implement this subsection.

"(B) Whenever necessary for purposes of carrying out any provision of this Act, the owner or operator of any facility at which any hazardous substance or pollutant or contaminant is located (and the owner or occupant of any adjacent property or other property which is necessary for access to such facility) shall, upon request of any officer, employee, or representative of the Administrator, duly designated by the Administrator, or upon request of any duly designated officer, employee, or representative of a State, permit such officer, employee, or representative to have access to such facility (or other property) at reasonable times, and for a reasonable duration. No person shall impede or interfere with such entry.".

TOXICOLOGICAL PROFILES

SEC. 109. Section 104(i) is amended by inserting "(1)" after "(i)", redesignating paragraphs (1) through (5) as subparagraphs (A) through (E) respectively, and adding the following new paragraph at the end thereof:

"(2)(A) The Administrator of the Agency for Toxic Substances and Disease Registry shall prepare toxicological profiles sufficient to establish the likely effect on human health of a minimum of one hundred hazardous substances which the Administrator of the Environmental Protection Agency determines, in his sole discretion, are most frequently found or pose the most significant threat to human health at facilities listed on the National Priorities List prepared under the National Contingency Plan.

"(B) The profiles required to be conducted under this paragraph shall be completed according to the following schedule:

"Number of Substances:	Date for Profile Completion:
25 substances	12 months after enactment of this paragraph
25 substances	24 months after enactment of this paragraph
25 substances	36 months after enactment of this paragraph
25 substances	48 months after enactment of this paragraph

PUBLIC PARTICIPATION

SEC. 110. Section 104 is amended by adding the following new subsection at the end thereof:

"(j)(1) Before adoption of any plan for remedial action to be undertaken by the Administrator or by a State or by any other person at any site, the Administrator, or State, as appropriate, shall—

"(A) publish a notice and brief analysis of the proposed plan and make such plan available to the public,

"(B) provide a reasonable opportunity for submission of written and oral comments regarding the proposed plan.

The notice and analysis published under paragraph (1) shall include sufficient information as may be necessary to provide a reasonable explanation of the proposed plan.

"(2) Notice of the final remedial action plan adopted shall be published and the plan shall be made available to the public before commencement of any remedial action. Such final plan shall be accompanied by a discussion of any significant changes (and the reasons for such changes) in the proposed plan and a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations under paragraph (1).

"(3) If any response action is taken, if any enforcement action under sections 106 and 107 is taken, or if any settlement or consent decree under section 107 is entered into, after adoption of a final remedial action plan, and if such action, settlement, or decree differs in any significant respects from the final plan, the Administrator shall provide an explanation of the significant differences and the reasons such changes were made.

"(4) For the purposes of this subsection, publication shall include, at a minimum, publication in a major local newspaper of general circulation.".

MANDATORY SCHEDULE

SEC. 111. Section 104 is amended by adding the following at the end thereof:

"(k)(1) The Administrator shall commence remedial investigations and feasibility studies for all facilities which are listed, as of the date of the enactment of this subsection, on the National Priorities List in accordance with the following schedule:

"(A) One-third of such facilities within 6 months after such date of enactment.

"(B) Two-thirds of such facilities within 12 months after such date of enactment.

"(C) All of such facilities within 18 months after such date of enactment.

"(2) The Administrator shall list not fewer than 1,600 facilities on the National Priorities List by January 1, 1988. The Administrator shall commence remedial actions and feasibility studies for each facility added to the National Priorities List after the date of the enactment of this subsection within six months after addition of such facility to the National Priorities List.

"(3) The Administrator shall take such steps as may be necessary to ensure that substantial and continuous physical on-site remedial action commences at facilities on the National Priorities List at a rate of not fewer than 150 facilities per year beginning on October 1, 1986.

"(4) Not later than January 1, 1987, the Administrator shall complete preliminary assessments of all facilities which are listed, as of the date of the enactment of this subsection, on the ERRIS (Emergency and Remedial Response Information System) list.

"(5) The Administrator shall take such steps as may be necessary to ensure that remedial action is completed, to the maximum extent practicable, for all facilities listed, as of the date of enactment of this subsection, on the National Priorities List within five years after the date of the enactment of this subsection. If remedial action is not completed at such facilities within such 5-year period, the Administrator shall publish an explanation of why such remedial action could not be completed within such period."

PETITION FOR HEALTH EFFECTS STUDIES; EMERGENCY RELIEF

SEC. 112. (a)(1) Any individual or group of individuals may submit a petition to the Administrator of the Environmental Protection Agency providing evidence which—

(A) demonstrates that such individual or individuals are being exposed to any hazardous substance; and

(B) provides an empirical analysis of the level of exposure.

(2) The Administrator shall take action under subsection (b)(1) if the Administrator determines that there is a reasonable likelihood that such substance is from a facility—

(A) where such substance is (or was in the past) treated, stored, recycled, or disposed of, on a regular basis; or

(B) at which removal action is being taken (or was taken in the past) under any provision of the Comprehensive Environmental Response Liability and Compensation Act of 1980, and

if the Administrator determines that the exposure may present a significant risk to human health.

(b) Within 30 days after receipt of a petition under subsection (a), the Administrator of the Environmental Protection Agency (or the Administrator of the Agency for Toxic Substances and Disease Registry if designated by the Administrator of the Environmental Protection Agency) shall—

(1) initiate a health effects study under subsection (c); or

(2) publish a written explanation of a determination that there is not a reasonable likelihood that the substance is from a facility referred to in subsection

(a)(2) or a determination that the exposure does not present a significant risk to human health.

(c) Each health effects study carried out under this subsection shall—

(1) ascertain the nature, magnitude, scope, and duration of the exposure of individuals to the hazardous substance concerned;

(2) identify, where possible, other individuals within the community who may be exposed to the same release; and

(3) include (but not be limited to)—

(A) a determination, where possible, of the source of any groundwater contamination involved;

(B) a toxicological and epidemiological evaluation of each hazardous substance involved; and

(C) any necessary medical testing of individuals.

Each study under this subsection shall be completed with 6 months after the date on which the petition is filed.

(d) If a health effects study carried out under this section contains a finding that the exposure concerned presents a significant risk to human health, shall take such steps as may be necessary to eliminate the significant risk to human health. Such steps may include (but shall not be limited to)—

(1) provision of alternative drinking water supplies, and

(2) relocation of individuals.

(e) In the case of any substance which is the subject to a petition under this section, nothing in this section shall be construed to delay or otherwise affect or impair the authority of the Administrator of the Environmental Protection Agency to exercise any authority vested in the Administrator under any other provision of law (including but not limited to the imminent hazard authority of section 7003 of the Solid Waste Disposal Act or the response and abatement authorities of the Comprehensive Environmental Response, Compensation and Liability Act of 1980).

NATIONAL CONTINGENCY PLAN

SEC. 113. (a) Not later than 18 months after the date of the enactment of this Act, the Administrator shall revise the National Contingency Plan referred to in section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 in order to reflect the amendments made by this Act. The portion of such Plan known as "the National Hazardous Substance Response Plan" shall be revised to provide procedures and standards for remedial actions undertaken pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 which are consistent with amendments made by section 106 of this Act relating to the level of protection required. Any provision of such plan adopted pursuant to any other provision of law which is inconsistent with the requirements of such amendments shall not apply to remedial actions undertaken, after the date of the enactment of this Act, under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

(b) Section 105 is amended by inserting "(a)" after "105." and by adding the following new subsection at the end thereof:

"(b) Any person may petition the Administrator to conduct a preliminary assessment of the hazards to public health and the environment which are associated with any release or threatened release of a hazardous substance or pollutant or contaminant. If the Administrator has not previously conducted a preliminary assessment of such release, the Administrator shall, within twelve months after the receipt of any such petition, complete such assessment or provide an explanation of why the assessment is not appropriate. If the preliminary assessment indicates that the release or threatened release concerned presents a significant threat to human health or the environment, the Administrator shall promptly evaluate such release or threatened release in accordance with the hazard ranking system referred to in paragraph (8)(A) of subsection (a) to determine the national priority of such release or threatened release.".

(d) Section 105(a)(8) is amended by inserting the following after "ecosystems,": "the damage to natural resources which may affect the human food chain and which is associated with any release or threatened release, the contamination or potential contamination of the ambient air which is associated with the release or threatened releases,".

ABATEMENT ACTIONS

SEC. 114. (a) Section 106(c) is amended by adding the following at the end thereof: "Within eighteen months after enactment of the Superfund Expansion and Protection Act of 1984, the Administrator shall, after consultation with the Attorney General, revise and republish the guidelines published under this subsection to effectuate the responsibilities and powers created by such Act."

(b) Section 106 is amended by adding the following new subsection at the end thereof:

"(d)(1) Notwithstanding any other provision of law or rule of law, the Administrator may establish such administrative procedures as the Administrator, in his sole discretion, deems advisable regarding the opportunity for any person to object to an order issued under subsection (a).

"(2) No court shall have jurisdiction to review any order issued under subsection (a) in any action other than an action to enforce such order or for recovery of a penalty for violation of such order or an action under section 107(c)(3) to recover punitive damages in connection with such order.".

LIABILITY

SEC. 115. (a) Section 107(a)(4) is amended—

(1) in subparagraph (A) by striking out "not inconsistent with the national contingency plan" and substituting "with respect to a release or threatened release of any hazardous substance or pollutant or contaminant and all costs incurred by the United States Government or a State under section 104(b);

(2) by striking out "and" at the end of subparagraph (B), by striking out the period at the end of subparagraph (C) and substituting "; and" and by adding the following at the end thereof:

"(D) the costs of any action taken by the Administrator under section 112 of the Superfund Expansion and Protection Act of 1984 to eliminate a significant risk to human health presented by exposure to a hazardous substance, pollutant, or contaminant and the costs of any health effects study carried out under such section 112 with respect to such exposure.

Liability under this subsection shall be strict, joint and several as construed and applied under section 311 of the Federal Water Pollution Control Act and under this subsection. The amounts recoverable in an action under this section shall include interest on the amounts recoverable under subparagraphs (A) through (D). Such interest shall accrue from the date on which the United States files an action for recovery of such amounts. The rate of interest on the outstanding unpaid balance of the amounts recoverable under paragraph (2) shall be the same rate as is applicable to investments of the Fund under section 223(b) of this Act. For purposes of applying section 223(b) in the case of interest on amounts recoverable under paragraph (2), the term 'comparable maturity' shall be determined with reference to the date of filing of the action for recovery under this section.".

(b) Section 107(d) is amended by striking out "damages" in each place it appears and inserting in lieu thereof "costs and damages".

(c) Section 107(g) is amended by inserting "(1)" after "(g) and by adding the following at the end thereof: "Nothing in this Act or in any other provision of law shall be construed to prevent the Administrator, represented by the Attorney General, from bringing any action under this Act against any other department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government.

"(2) Notwithstanding any other provision of law, the Attorney General shall not represent any department, agency, or instrumentality of the United States (other than the Environmental Protection Agency) in any civil action under this subtitle to which the Administrator is a party. The head of such department, agency, or instrumentality may appoint attorneys employed by such department, agency, or instrumentality, or enter into contracts with attorneys who are not officers or employees of the United States, to represent the department, agency, or instrumentality in any such action."

(d) Section 107 is amended by adding the following new subsection at the end thereof:

"(l)(1) In any action under this section, the results of laboratory tests conducted by the Administrator (or by a State) to determine what substances are present at the facility where a release or threatened release occurs may be introduced into evidence and shall be presumed to be accurate.

"(2) The presumption under paragraph (1) shall be overcome with respect to any laboratory test if the defendant establishes by a preponderance of the evidence that such test results lack a reasonable basis.".

USES OF FUND

SEC. 116. (a) Section 111(c) is amended by striking out "and" at the end of paragraph (5), by striking out the period at the end of paragraph (6) and substituting "; and" and by adding the following new paragraphs at the end thereof:

"(7) payment of any expenses or costs incurred under section 112 of the Superfund Expansion and Protection Act of 1984, relating to emergency relief and health effects studies;

"(8) costs incurred by the Agency for Toxic Substances and Disease Registry in preparing toxicological profiles under section 104(i)(2); and

"(9) costs incurred by the Administrator in evaluating facilities pursuant to petitions under section 105.".

(b) Section 111(e)(2) is amended to read as follows:

"(2) In any fiscal year, not more than 6 percent of the money credited to the fund shall be available for the purposes specified in paragraph (3) of subsection (a).".

(c) Section 111(k) is amended to read as follows:

"(k) In each fiscal year, the Inspector General of the Environmental Protection Agency shall—

"(1) conduct an annual audit of all payments, obligations, reimbursements, or other uses of the Fund in the prior fiscal year, to assure that the Fund is being properly administered and that claims are being appropriately and expeditiously considered;

"(2) prepare a report on the status of all remedial and enforcement actions undertaken during the prior fiscal year;

"(3) estimate the amount of resources, including the number of work years or personnel, which would be necessary for the Administrator to complete the implementation of all duties vested in the Administrator under this Act.

Such audit shall include an examination of a random sample of agreements between the Administrator and States carrying out response actions under this subtitle and an examination of remedial investigations and feasibility studies prepared for remedial actions. The status report referred to in paragraph (2) shall include a comparison to remedial and enforcement actions undertaken in prior fiscal years. The Inspector General shall submit to the Congress an annual report regarding the audit and status report required under this subsection. The report shall contain such recommendations as the Inspector General deems appropriate. Each Federal agency shall cooperate with the Inspector General of the Environmental Protection Agency in carrying out this subsection.".

(e) Section 111 is amended by adding the following new subsection at the end thereof:

"(m) No potentially liable person may seek judicial review of any determination to incur any governmental response costs pursuant to section 104 or to utilize the Fund for payment of any such costs except in an action to recover such costs under section 107.".

STATUTE OF LIMITATIONS

SEC. 117. (a) Section 112(d) is amended to read as follows:

"(d)(1) Except as provided in paragraph (3), no claim may be presented, nor may an action be commenced for damages, as defined in section 101(6), under this Act, unless that claim is presented or action commenced within three years after the later of: (A) the date of the discovery of the loss, (B) the date on which regulations are promulgated under section 301(c), or (C) the date on which regulations are promulgated establishing procedures for the filing of such claims.

"(2) No claim may be presented nor may an action be commenced under this subsection for recovery of the costs referred to in section 107(a)(2) after the date six years after the date of completion of the response action.

"(3) The time limitations contained herein shall not begin to run against a minor until he reaches eighteen years of age or a legal representative is duly appointed for him, nor against an incompetent person until his incompetency ends or a legal representative is duly appointed for him.".

(b) Section 301(c)(1) is amended by striking out "two years after the enactment of this Act" and substituting "6 months after the enactment of the Superfund Expansion and Protection Act of 1984.

RELATIONSHIP TO OTHER LAW

SEC. 118. Section 114(c) is amended to read as follows:

"(c) Notwithstanding any provision of this or any other law, a State may require any person to contribute to any fund the purpose of which is to pay compensation for claims for any costs of response or damages which may be compensated under this Act.".

TITLE II—FEDERAL CAUSE OF ACTION

DEFINITIONS

SEC. 201. For purposes of this title—

(1) The term "medical costs" means the costs of all appropriate medical, surgical, hospital, nursing care, ambulance, and other related services, drugs, medicines, as appropriate for both diagnosis and treatment, and any rehabilitative programs within the scope of section 103 of the Rehabilitation Act of 1973 (29 U.S.C. 723).

(2) The term "dependent" means with respect to any deceased person the individual or individuals referred to in section 8110 of title 5 of the United States Code.

(3) The terms "Administrator", act of God", and "hazardous substance", and "facility" shall have the same meaning when used in this title as when used in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

(4) The terms "treatment", "storage", and "disposal" (and related terms such as "treat", "store" and "dispose of") shall have the same meaning when used

in this title as when used in the Solid Waste Disposal Act.

Subtitle A—Federal Cause of Action

LIABILITY

SEC. 202. (a) GENERAL RULE.—Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b)(2)—

(1) the owner and operator of a vessel (otherwise subject to the jurisdiction of the United States) or a facility,

(2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substance was disposed of,

(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility owned or operated by another party or entity and containing such hazardous substances, and

(4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities or sites selected by such person,

shall be liable to any individual (or his dependents) for damages to such individual which are compensable under this title and which result from harm caused by a release of a hazardous substance from such facility.

(b) STRICT; JOINT AND SEVERAL.—(1) The liability of any person under this title shall be strict. Except as provided in paragraph (2) of this subsection, such liability shall be joint and several. Nothing in this section shall be construed to affect the equitable powers of apportionment of any court following an adjudication of liability.

(2) If any defendant in an action under this section establishes by a preponderance of the evidence that the harm for which damages are compensable under this title is divisible, he shall be liable only for his portion of such harm.

(3) There shall be no liability under subsection (a) for any defendant who can establish by a preponderance of the evidence that the exposure to a hazardous substance or the damage resulting from such exposure, was caused solely by—

(A) an act of God;

(B) an act of war;

(C) an act or omission of a third party other than an employee or agent of the defendant, or than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant (except where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail), if the defendant establishes by a preponderance of the evidence that (i) he exercised due care with respect to the hazardous substance concerned, taking into consideration the characteristics of such hazardous substance, in light of all relevant facts and circumstances, and (ii) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions; or

(D) any combination of the foregoing subparagraphs.

COMPENSABLE DAMAGES

SEC. 203. The following damages shall be compensable under this title:

(1) Any medical expenses, rehabilitation costs, or burial expenses due to personal injury, illness, or death.

(2) Any loss of income or profits or any impairment or loss of earning capacity due to personal injury, illness, or death.

(3) Any pain and suffering which results from personal injury, illness, or death.

(4) Any economic loss and any damages to property, including diminution in value.

JURISDICTION; COSTS OF LITIGATION

SEC. 204. (a) Any action under this title may be maintained in a district court of the United States in a district in which either the plaintiff or defendant resides or in which the defendant's principal place of business is located, without regard to the amount in controversy. Jurisdiction of the United States district courts over an action under this title shall be concurrent with the jurisdiction of the courts of any State over such an action and nothing in this section shall be construed to affect the jurisdiction of any State court with respect to any action under this title.

(b) In issuing any final order in any action under this part, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever the court determines such award is appropriate.

STATE LAW

SEC. 205. Nothing in this title shall be construed to preempt, or otherwise affect, any provision of State law regarding liability for damages in connection with any hazardous substance.

Subtitle B—General Provisions

LIMITATIONS

SEC. 211. (a) No action may be brought by any individual under this title after the end of a three-year period beginning on the later of the following—

(1) the date the individual knew (or reasonably should have known) that the injury, illness, or death or other expense was caused by the hazardous substance concerned; or

(2) the date of the enactment of this Act.

(b) The time limitation described in subsection (a) shall not begin to run—

(1) against a minor, until that minor reaches eighteen years of age or has had a legal representative appointed; or

(2) against an incompetent individual, until that individual becomes competent or has had a legal representative appointed.

WORKER'S COMPENSATION

SEC. 212. No person who is an employee covered by a State or Federal worker's compensation plan which compensates employees for an injury, illness, or death arising out of and in the course of employment (or pursuant to similar tests of work-relatedness) may recover any amount under this title for such injury, illness, or death.

TITLE III—MISCELLANEOUS PROVISIONS

CITIZEN SUITS

SEC. 301. Section 305 is amended to read as follows:

"CITIZEN SUITS

"SEC. 305. (a) Except as provided in subsection (b) or (c) of this section, any person may commence a civil action on his own behalf—

"(1)(A) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any requirement which has become effective pursuant to this Act; or

"(B) against any person, including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution who has contributed or who is contributing to the past or present handling storage, treatment, transportation, or disposal of any hazardous substance or pollutant or contaminant which may present an imminent and substantial endangerment to health or the environment; or

"(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

Any action under paragraph (a)(1) of this subsection shall be brought in the district court for the district in which the alleged violation occurred. Any action brought under paragraph (a)(2) of this subsection may be brought in the District Court of the District of Columbia. The district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such requirement or to order the Administrator to perform such act or duty as the case may be, to immediately restrain any person contributing to the endangerment referred to in paragraph (1)(B), to order such person to take such other action as may be necessary, or both, or to order the Administrator to perform the act or duty referred to in paragraph (2), as the case may be, to apply any appropriate civil penalties under this Act.

"(b)(1) No action may be commenced under paragraph (a)(1) of this section prior to sixty days after the plaintiff has given notice of the violation (A) to the Administrator; (B) to the State in which the alleged violation occurs; and (C) to any alleged violator.

"(2) No action may be commenced under subsection (a)(1)(A) if the Administrator has commenced and is diligently prosecuting, or if the State has brought an action under this section, to require compliance with the requirement referred to in section (a)(1)(A).

"(3) No action may be commenced under subsection (a)(1)(B) if the Administrator has commenced and is diligently prosecuting, an action under section 106 or if the State has brought an action under this section, to immediately restrain any person contributing to the endangerment referred to in subsection (a)(1)(B).

"(c) No action may be commenced under paragraph (2) of subsection (a) prior to 60 days after the plaintiff has given notice to the Administrator that he will commence such action. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation. Any action respecting a violation under this Act may be brought under this section only in the judicial district in which such alleged violation occurs.

"(d) The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

"(e) Nothing in this Act shall restrict any right which any person (or class or persons) may have under any statute or common law to seek enforcement of any standard or requirement relating to hazardous substances, or pollutants or contaminants, or to seek any other relief (including relief against the Administrator or a State agency).".

TITLE IV—REGULATION OF UNDERGROUND STORAGE TANKS

DEFINITIONS

SEC. 401. For purposes of this title—

(1) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) The term "person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body.

(3) The term "owner or operator" means, when used in connection with an underground storage tank, any person owning or operating such tank.

"(4) The term 'release' means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from the underground storage tank into the ground.

(5) The term "hazardous substance" means (A) any substance designated, pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act, (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of this

Act, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress), (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act, (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action, pursuant to section 7 of the Toxic Substances Control Act, and (G) petroleum product or any fraction thereof. The term does not include natural gas, natural gas liquids, propane, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas.

(6) The term "underground storage tank" means any one or combination of tanks, including underground pipes connected thereto, which is used to contain an accumulation of hazardous substances and which is partially or totally beneath the surface of the ground. Such term does not include—

(A) farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,

(B) tanks used for storing heating oil for consumptive use on the premises where stored,

(C) residential septic tanks,

(D) pipelines regulated under the Natural Gas Pipeline Act of 1968 (49 U.S.C. 1671 et seq.), or

(E) surface impoundments, pits, ponds, lagoons, or basins.

NOTIFICATION

SEC. 402. (a)(1) Whenever any person has (during the applicable period) supplied any hazardous substance to 100 or more sites at which there is located an underground storage tank which is, or has been used for the storage of any hazardous substance, the person supplying such hazardous substance shall notify the State or local agency or department designated pursuant to subsection (b)(1) of the existence of any tank located at such site which is, or has been used for the storage of any hazardous substance. For purposes of this paragraph, the applicable period shall be the calendar year immediately preceding the calendar year in which this title was enacted.

(2) The Administrator shall promulgate regulations not later than 8 months after the date of the enactment of this title regarding the providing of notice under this section which is sufficient to obtain information concerning underground storage tanks which are, or have been, used for the

storage of any hazardous substance and which are not located at a site referred to in paragraph (1). In promulgating such regulations, the Administrator shall take into account the effect on small business.

(3) Notice under paragraph (1) this subsection shall be provided within 12 months after the date of the enactment of this title. Notice under paragraph (2) this subsection shall be provided within 12 months after the promulgation of regulations under paragraph (2).

(4) Notice under paragraph (1) or (6) of this subsection shall specify the age, size, type, location, and uses of such tanks and any current or previous releases and corrective action. In the case of any underground storage tank used for storing any hazardous substance prior to the date of enactment of this title but taken out of operation before such date (but after January 1, 1974), unless the tank has been removed from the ground, notice under paragraph (1) or (2) of this subsection shall specify the date the tank was taken out of operation, the age of the tank on the date taken out of operation, the size, type, and location of the tank, and the type and quantity of substances left stored in such tank on the date taken out of operation.

(5) Notice under this subsection shall not be required in the case of any tank for which notice was given pursuant to

section 103(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1984.

(6) Any owner or operator which installs or brings into use an underground storage tank after the date of the enactment of this Act, shall (within 6 months after such installation or bringing into use) notify the designated State or local agency or department within thirty days of installation or use.

(b)(1) Within ninety days after the enactment of this title, the Governor of each State shall designate the appropriate State agency or department or local agencies or departments to receive the notifications under subsection (a). If a Governor chooses not to designate a State agency or department or local agencies or departments, the notification under subsection (a) shall be submitted to the Administrator of the United States Environmental Protection Agency.

(2) Within one hundred and eighty days after the enactment of this title, the Administrator, in consultation with State and local officials designated pursuant to subsection (b)(1), shall prescribe in greater detail the form of the notice and the information to be included in the notifications under subsection (a).

(c) If the notification under subsections (a)(1) and (2) are submitted to a designated State or local agency or department, the State shall compile the submitted information into a comprehensive inventory and furnish such inventory to the Administrator within eighteen months after enactment of this title.

RELEASE DETECTION, PREVENTION, AND CORRECTION REGULATIONS

SEC. 403. (a) Not later than eighteen months after the date of the enactment of this title, the Administrator, after opportunity for public comment, shall promulgate release detection, prevention and correction regulations, applicable to all owners and operators of underground storage tanks used for storing hazardous substances, as may be necessary to protect human health and the environment. The Administrator may conduct any survey necessary for the development of such regulations. Such regulations shall include, but need not be limited to, requirements respecting—

(1) maintaining a leak detection or inventory system and performing tank testing necessary to identify releases of a hazardous substance from the underground storage tank;

(2) maintaining records of any leak detection or inventory system or tank testing;

(3) reporting of any releases of a hazardous substance and corrective action taken in response to a release from an underground storage tank;

(4) standards of performance for new underground storage tanks which shall include, but not be limited to—

(A) design, construction, location and installation requirements adequate to prevent or minimize any release of hazardous substances into the environment;

(B) a requirement that piping systems be equipped with leak detection systems; and

(C) a requirement that each tank be equipped with a leak detection system;

(5) taking corrective action in response to a release of a hazardous substance from an underground storage tank as may be necessary to protect human health and the environment;

(6) the closure of tanks in order to prevent any future release of a hazardous substance into the environment; and

(7) maintaining evidence of financial responsibility as may be necessary for taking necessary corrective action and for compensation for bodily injury and property damage to third parties caused by releases of a hazardous substance from an underground storage tank.

(b) Until the effective date of the regulations promulgated by the Administrator under subsection (a) and after 180 days after the date of the enactment of this title, no person may install or begin using an underground storage tank for the purpose of storing hazardous substances unless such tank is cathodically protected against corrosion, constructed of a noncorrosive material, or contained in a manner designed to prevent the release of any stored hazardous substances.

APPROVAL OF STATE PROGRAMS

SEC. 404. (a) Any State may submit an underground storage tank release detection, prevention, and correction program for review and approval by the Administrator. The State shall demonstrate that the State program is equivalent to the Federal program under section 403 and provides for adequate enforcement of compliance with such requirements. A State's new tank standards shall be no less stringent than the performance standards promulgated by the Administrator pursuant to section 403(a)(5).

(b)(1) Within 120 days of the date of receipt of a proposed State program, the Administrator shall, after notice and opportunity for public comment, make a determination whether the State's program is equivalent to the Federal program under section 403 and provides for adequate enforcement of compliance with such requirements.

(2) If the Administrator determines that a State program is equivalent to the Federal program under section 403

and provides for adequate enforcement of compliance with such requirements, he shall approve the State program and the State shall have primary enforcement responsibility with respect to requirements related to control of underground storage tanks used to store hazardous substances.

(c) Whenever the Administrator determines after public hearing that a State is not administering and enforcing a program authorized under this title in accordance with the requirements of section 403, he shall so notify the State, and, if appropriate action is not taken within 120 days, the Administrator shall withdraw authorization of such program and enforce the requirements of this title.

INSPECTIONS, MONITORING AND TESTING

SEC. 405. (a) For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, any owner or operator of an underground storage tank used for storing hazardous substances shall, upon request of any officer, employer or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee or representatives of a State with an approved program, furnish information relating to such tanks or contents and permit such person at all reasonable times to have access to, and to copy all records relating to such tanks and to conduct such monitoring or testing as such officer deems necessary. For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, such officers, employees or representatives are authorized—

(1) to enter at reasonable times any establishment or other place where an underground storage tank is located;

(2) to inspect and obtain samples from any person of any such hazardous substances and conduct monitoring or testing of the tanks, contents, or surrounding soils. Each such inspection shall be commenced and completed with reasonable promptness.

(b)(1) Any records, reports, or information obtained from any person under this section shall be available to the public, except that upon a showing satisfactory to the Administrator (or the State, as the case may be) by any person that records, reports, or information, or particular part thereof, to which the Administrator (or the State, as the case may be) or any officer, employee or representative thereof has access under this section if made public, would divulge information entitled to protection under section 1905 of title 18 of the United States Code, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this title, or when relevant in any proceeding under this title.

(2) Any person not subject to the provisions of section 1905 of title 18 of the United states Code who knowingly and willfully divulges or discloses any information entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than $5,000 or to imprisonment not to exceed one year, or both.

(3) In submitting data under this title, a person required to provide such data may—

(A) designate the data which such person believes is entitled to protection under this subsection, and

(B) submit such designated data separately from other data submitted under this title.

A designation under this paragraph shall be made in writing and in such manner as the Administrator may prescribe.

(4) Notwithstanding any limitation contained in this section or any other provision of law, all information reported to, or otherwise obtained by, the Administrator (or any representative of the Administrator) under this title shall be made available, upon written request of any duly authorized committee of the Congress, to such committee (including records, reports, or information obtained by representatives of the Environmental Protection Agency).

FEDERAL ENFORCEMENT

SEC. 406. (a)(1) Except as provided in paragraph (2), whenever on the basis of any information the Administrator determines that any person is in violation of any requirement of this title, the Administrator may issue an order requiring compliance immediately or within a specified time period or the Administrator may commence a civil action in the United States district court in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(2) In the case of a violation of any requirement of this title where such violation occurs in a State with a program approved under section 404, the Administrator shall give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section. If the State fails to take appropriate action within 120 days after receipt of such notice, the Administrator shall issue an order under paragraph (1) requiring compliance with such State program.

(3) If such violator fails to comply with the order within the time specified in the order, he shall be liable for a civil penalty of not more than $25,000 for each day of continued noncompliance.

(b) Any order shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(c) Any order issued under this section shall state with reasonable specificity the nature of the violation and specify a time for compliance and assess a penalty, if any, which the Administrator determines is reasonable taking into account the seriousness of the violation and any good faith efforts to comply with the applicable requirements.

(d)(1) Any owner or operator who knowingly fails to notify, or submits false information, pursuant to section 402(a) shall be subject to a civil penalty not to exceed $25,000 for each tank for which notification is not given or false information submitted.

(2) Any owner or operator of an underground storage tank used for storing a hazardous substance who fails to comply with regulations promulgated by the Administrator under this title or with a State program approved pursuant to section 404, shall be subject to a civil penalty not to exceed $25,000 for each tank and for each day of violation.

(3) Any owner or operator of an underground storage tank used for storing hazardous substances who fails to comply with the provisions of section 403(b) shall be subject to a civil penalty not to exceed $25,000 for each tank and for each day of violation.

FEDERAL FACILITIES

SEC. 407. (a) Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any underground storage tank and used for the purpose of storing hazardous substances, shall be subject to and comply with all Federal, State, interstate, and local requirements, both substantive and procedural respecting construction, installation, operation, testing, corrective action, removal, and closure of underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements, including payment of reasonable service charges.

(b) Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal court with respect to the enforcement of any injunctive relief under this title. The President may exempt any underground storage tanks of any department, agency, or instrumentality in the executive branch from compliance with a requirement of this title if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriated funds unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

STATE AUTHORITY

SEC. 408. Nothing in the title shall preclude or deny any right of any State or political subdivision thereof to adopt or enforce any regulation, requirement, or standard of performance respecting underground storage tanks used to store hazardous substances that is more stringent than a regulation, requirement, or standard of performance in effect under this title.

STUDY OF EXEMPTED UNDERGROUND STORAGE TANKS

SEC. 409. Not later than thirty six months after the date of enactment of this title, the Administrator shall complete a study regarding the tanks excluded under section 401(4)(A) and (B). Such study shall include estimates of the number and location of such tanks and an analysis of the extent to which there may be releases or threatened releases from such tanks into the environment. Upon completion of the study, the Administrator shall submit a report to the President and to the Congress containing the results of the study and recommendations respecting whether or not such tanks should be subject to the preceding provisions of this title.

TITLE V—AMENDMENTS OF THE INTERNAL REVENUE CODE OF 1954

SEC. 501. TAX ON PETROLEUM.

(a) INCREASE IN TAX.—Subsections (a) and (b) of section 4611 of the Internal Revenue Code of 1954 (relating to environmental tax on petroleum) are each amended by striking out "0.79 cent" and inserting in lieu thereof "4.5 cents".

(b) TERMINATION OF TAX.—(1) Subsection (d) of section 4611 of such Code (relating to termination) is amended to read as follows:

"(d) TERMINATION.—The tax imposed by this section shall not apply after September 30, 1990."

(2) Section 303 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is repealed.

(c) EFFECTIVE DATE.—The amendments made by this section shall take effect on October 1, 1985.

SEC. 502. REPEAL OF POST-CLOSURE TAX AND TRUST FUND.

(a) IN GENERAL.—Subtitle C of the Hazardous Substance Response Revenue Act of 1980 (relating to Post-Closure Tax and Trust Fund), and the amendments made by such subtitle, are hereby repealed.

(b) TECHNICAL AMENDMENTS.—(1) Sections 107(k) and 111(j) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 are hereby repealed.

(2) Section 101(11) of such Act is amended by striking out "or, in the case of" and all that follows down to the semicolon.

(c) REFUND OF TAX.—All sums credited to the Post Closure Liability Trust Fund established under section 232 of the Hazardous Substance Response Revenue Act of 1980 which have not been obligated or expended prior to the date of the enactment of this Act shall be refunded to the persons who paid taxes under section 6681 of the Internal Revenue Code of 1954. Such refunds shall be made on a ratable basis in proportion to the total amount of such taxes which were paid by each such person.

SEC. 503. WASTE END TAX.

(a) IN GENERAL.—Effective January 1, 1987, chapter 38 of the Internal Revenue Code of 1954 (relating to environmental taxes) is amended by adding at the end thereof the following new subchapter:

"Subchapter C—Waste End Tax

"Sec. 4681. Imposition of tax.
"Sec. 4682. Exemptions.
"Sec. 4683. Definitions and special rules.

"SEC. 4681. IMPOSITION OF TAX.

(a) IN GENERAL.—There is hereby imposed a tax on the disposal of any hazardous substance, if such disposal is required to be carried out in compliance with subtitle C of the Solid Waste Disposal Act.

"(b) AMOUNT OF TAX.—The amount of the tax imposed by subsection (a) shall be—

"(1) in the case of any hazardous substance for which there is in effect, under regulations section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of one pound or less—

"(A) $30 for each metric ton which is not disposed of by underground injection; or

"(B) $15 for each metric ton which is disposed of by underground injection;

"(2) in the case of all hazardous substances for which there is in effect, under regulations section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of more than one pound or for which no reportable quantity has been specified under such regulations—

"(A) $10 for each metric ton which is not disposed of by underground injection; or

"(B) $5 for each metric ton which is disposed of by underground injection; and

"(3) in the case of any mixture of any hazardous substance referred to in paragraph (1) and any hazardous substance referred to in paragraph (2), for purposes of determining the applicable rate under this subsection, the entire mixture shall be deemed to be a hazardous substance referred to in paragraph (1).

"(c) LIABILITY FOR TAX.—The tax imposed by subsection (a) shall be paid by—

"(1) in the case of disposal at a facility for which a permit is in effect under subtitle C of the Solid Waste Disposal Act, the owner or operator of such facility, and

"(2) in the case of disposal other than at such a facility, the person disposing of the hazardous substance.

"(d) TERMINATION.—The tax imposed by this section shall not apply after September 30, 1990.

"SEC. 4682. EXEMPTIONS.

"The tax imposed by section 4681 shall not apply to the following—

"(1) The disposal of any substance by incineration in accordance with the standards applicable to incineration facilities permitted under subtitle C of the Solid Waste Disposal Act.

"(2) The disposal of any substance by any person in the course of carrying out any removal or remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(3) The disposal of any solid waste which is required to be studied under subsection (f) or (p) of section 8002 of the Solid Waste Disposal Act unless, after the completion of the studies, a law is enacted subjecting such waste to the tax imposed by section 4681.

"SEC. 4683. DEFINITIONS AND SPECIAL RULES.

"(a) IN GENERAL.—For purposes of this subchapter—

"(1) HAZARDOUS SUBSTANCE.—The term 'hazardous substance' has the meaning given such term by section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(2) OTHER TERMS.—The terms 'waste', 'hazardous waste', 'storage', and 'disposal' have the respective meanings given such terms by section 1004 of the Solid Waste Disposal Act.

"(3) REPORTABLE QUANTITY.—The term 'reportable quantity' refers to the notification requirement of section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(4) UNDERGROUND INJECTION.—The term 'underground injection' has the same meaning as when used in the Safe Drinking Water Act.

"(5) TON.—The term 'metric ton' means 1,000 kilograms.

"(b) SPECIAL RULES.—

"(1) WASTE TREATED AS DISPOSED OF NOT LATER THAN 1 YEAR AFTER GENERATION.—

"(A) IN GENERAL.—For purposes of this subchapter, in the case of any waste—

"(i) which has been stored during the 1-year period beginning on the later of date of its generation or the date of the enactment of the Superfund Expansion and Protection Act of 1984, and

"(ii) which is listed or identified as a hazardous waste under section 3001 of the Solid Waste Disposal Act as of the close of such period,

such waste shall be treated as disposed of on the first day after such period and the tax imposed by section 4681 on such disposal shall be paid by the owner or operator of the site or facility at which such waste is located on such first day.

"(B) WASTE TREATED AS GENERATED NOT EARLIER THAN DATE IDENTIFIED AS HAZARDOUS.—In the case of a waste—

"(i) which was not listed or identified as a hazardous waste under section 3001 of the Solid Waste Disposal Act on the date of its generation, but

"(ii) which is so listed or identified during the 1-year period beginning on the date of its generation,

the date such waste is so listed or identifed shall be treated as the date of its generation for purposes of subparagraph (A).

"(C) EFFECTIVE DATE OF IDENTIFICATION.—For purposes of this paragraph, a waste shall be treated as listed or identified on any date if the listing or identification is in effect for such date.

"(2) FRACTIONAL PART OF TON.—In the case of a fraction of a metric ton, the tax imposed by section 4681 shall be the same fraction of the amount of such tax imposed on a whole metric ton."

(b) Revenues From Additional Tax Deposited in Hazardous Substance Response Trust Fund.—Subparagraph (A) of section 221(b)(1) of the Hazardous Substance Response Revenue Act of 1980 (relating to establishment of Hazardous Substance Response Trust Fund) is amended by striking out "section 4611 or 4661" and inserting in lieu thereof "section 4611, 4661, or 4681".

(c) Clerical Amendment.—Effective January 1, 1987, the item relating to subchapter C is the table of subchapters for chapter 38 of such Code is amended to read as follows:

"Subchapter C—Waste End Tax."

(d) Effective Date.—The amendments made by this section shall take effect on January 1, 1987.

SEC. 504. AMENDMENTS RELATED TO ENVIRONMENTAL TAX ON CERTAIN CHEMICALS.

(a) Rates of Tax; Additional Chemicals Taxed.—The table contained in subsection (b) of section 4661 of the Internal Revenue Code of 1954 (relating to tax on certain chemicals) is amended to read as follows:

"In the case of:	The tax is the following amount per ton:
Acetylene	$29.87
Aluminum	1.53
Ammonia	7.44
Antimony	14.94
Antimony trioxide	14.94
Arsenic	14.94
Arsenic trioxide	14.94
Asbestos	13.92
Barium sulfide	14.94

Benzene	14.88
Benzene (derived from coal)	14.88
Benzene (mixed into gasoline)	2.88
Boron trioxide	14.94
Bromine	14.94
Butadiene	24.80
Butane	7.09
Butylene	9.92
Cadmium	14.94
Chlorine	5.67
Chromite	2.55
Chromium	14.94
Coal-derived light oils	10.63
Coal tars	3.93
Cobalt	14.94
Cupric oxide	14.88
Cupric sulfate	14.88
Cuprous oxide	14.88
Ethylene	17.71
Hydrochloric acid	0.34
Hydrogen fluoride	14.94
Lead	14.94
Lithium carbonate	14.94
Manganese	2.77
Mercury	14.94
Methane	2.48
Naphthalene	13.82
Naphthalene (derived from coal)	13.82
Nickel	14.94
Nitric acid	0.28
Phosphoric acid	0.30
Phosphorus	14.94
Potassium dichromate	14.94
Potassium hydroxide	0.26
Propylene	13.82
Silenium	14.94
Sodium dichromate	14.94
Sodium hydroxide	0.33
Stannic chloride	14.94
Stannous chloride	14.94
Sulfuric acid	0.31
Toluene	12.75
Toluene (derived from coal)	12.75
Toluene (mixed into gasoline)	2.88
Uranium oxide	1.44
Vanadium	2.48
Xylene	13.11
Xylene (derived from coal)	13.11
Xylene (mixed into gasoline)	2.88
Zinc	14.94.”

(b) CERTAIN SUBSTANCES DERIVED FROM COAL TREATED AS TAXABLE CHEMICALS.—Paragraph (4) of section 4662(b) of such Code (relating to substances derived from coal) is amended to read as follows:

"(4) SUBSTANCES DERIVED FROM COAL.—For purposes of this subchapter—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the term 'taxable chemical' shall not include any substance to the extent derived from coal.

"(B) EXCEPTIONS.—Subparagraph (A) shall not apply to:

"(i) Benzene.

"(ii) Toluene.

"(iii) Xylene.

"(iv) Naphthalene.

"(v) Tars.

"(vi) Light oils."

(c) EXPANSION OF EXCEPTION FOR SUBSTANCES USED IN PRODUCTION OF FERTILIZER.—Clause (iii) of section 4662(b)(2)(B) of such Code (defining qualified substance) is amended to read as follows:

"(iii) sold for resale by any purchaser for use or for resale for ultimate use in a qualified use."

(d) EFFECTIVE DATE.—The amendments made by this section shall take effect on October 1, 1985.

SEC. 505. AMENDMENTS RELATING TO HAZARDOUS SUBSTANCE RESPONSE TRUST FUND.

(a) INCREASE IN AUTHORIZATIONS.—Paragraph (2) of section 221(b) of the Hazardous Substance Response Revenue Act of 1980 (relating to establishment of Hazardous Substance Response Trust Fund) is amended to read as follows:

"(2) AUTHORIZATION FOR APPROPRIATIONS.—There is authorized to be appropriated to the Response Trust Fund for the fiscal year—

"(A) 1986, $181,000,000,

"(B) 1987, $181,000,000,

"(C) 1988, $256,000,000,

"(D) 1989, $256,000,000, and

"(E) 1990, $256,000,000,

plus for each such fiscal year an amount equal to so much of the aggregate amount authorized to be appropriated under this paragraph (and the corresponding provisions of prior law) as has not been appropriated before the beginning of the fiscal year involved."

(b) AMENDMENTS RELATING TO FUND EXPENDITURES.—

(1) EXPANSION OF AUTHORIZED EXPENDITURES.—Subparagraph (D) of section 221(c)(1) of the Hazardous Substance Response Revenue Act of 1980 (relating to expenditures from Response Trust Fund) is

amended by striking out "related" and inserting in lieu thereof "other".

(2) INCREASE IN FUND AMOUNTS RESERVED FOR CERTAIN PURPOSES.—Paragraph (2) of section 221(c) of such Act is amended by striking out "85 percent" and inserting in lieu thereof "94 percent".

(c) AMENDMENTS RELATING TO REPAYABLE ADVANCES.—Paragraph (2) of section 223(c) of such Act (relating to authority to borrow) is amended—

(1) in subparagraphs (B) by striking out "1983" and substituting "1988", and

(2) in subparagraph (D) by striking out "1985" and substituting "1990".

(d) EFFECTIVE DATE.—The amendments made by this section shall take effect on October 1, 1985.

[JOINT COMMITTEE PRINT]

BACKGROUND AND ISSUES RELATING TO H.R. 5640, THE SUPERFUND EXPANSION AND PROTECTION ACT OF 1984

Scheduled for a Hearing

BEFORE THE

COMMITTEE ON WAYS AND MEANS

ON JULY 25, 1984

Prepared by the Staff

OF THE

JOINT COMMITTEE ON TAXATION

JULY 23, 1984

U.S. GOVERNMENT PRINTING OFFICE
36-684 O WASHINGTON : 1984 JCS-27-84

CONTENTS

	Page
INTRODUCTION	1
I. SUMMARY	3
II. PRESENT LAW	5
A. Tax Provisions	5
1. Hazardous Substance Response Taxes and Trust Fund	5
2. Post-closure Tax and Trust Fund	9
B. Non-Tax Provisions	10
III. OPERATION OF SUPERFUND PROGRAM UNDER PRESENT LAW	13
A. Superfund Program Activities	13
B. Hazardous Substance Response Trust Fund	15
C. Studies	18
IV. DESCRIPTION OF H.R. 5640 AND AMENDMENTS RECOMMENDED BY THE COMMITTEE ON ENERGY AND COMMERCE	19
A. Amendments to the Hazardous Substance Response Trust Fund	19
B. Tax Provisions	20
C. Non-Tax Provisions Affecting the Hazardous Substance Response Trust Fund	28
V. ISSUES RELATING TO THE TAX PROVISIONS OF H.R. 5640	31
A. Funding level of the Superfund	31
B. General Revenue Share	32
C. Feedstock Tax	33
D. Trade Effect of Feedstock Tax	35
E. Disposal Tax	36
F. Post-closure Liability Trust Fund	41
VI. REVENUE EFFECT	43

ERRATA AND ADDENDUM SHEET FOR JCS-27-84
(JULY 23, 1984)

(1) On page 22, the tax rate on lithium carbonate under H.R. 5640 should be $14.94, rather than $2.77 and the tax rate on manganese under H.R. 5640 should be $2.77, rather than $14.94.

(2) On page 44, at the end of the first sentence of the last paragraph, add:

> "Assuming appropriation of the $1.1 billion of general revenues authorized, these estimates imply that total funds available for the Superfund program under H.R. 5640 would be $8.8 billion over the 1986-1991 period, rather than the $9.5 billion intended by the Committee on Energy and Commerce and reflected in the text above (pages 4, 19 and 31). The primary difference arises from a lower estimate of the revenues to be generated by the waste-end tax."

INTRODUCTION

The Committee on Ways and Means has scheduled a public hearing on H.R. 5640, the Superfund Expansion and Protection Act of 1984, on July 25, 1984. H.R. 5640 amends the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the tax provisions of which expire on September 30, 1985.

H.R. 5640 was introduced on May 19, 1984, by Mr. Florio and others and referred to the Committees on Energy and Commerce and Public Works and Transportation for a period ending not later than July 24, 1984, and to the Committee on Ways and Means. On June 21, 1984, the Committee on Energy and Commerce ordered the bill reported, as amended, by a vote of 38 to 3 and the committee report was filed on July 16, 1984. The Committee on Energy and Commerce also adopted several motions specifying amendments that the Committee will recommend to the Committee on Rules and to the House, involving changes to the tax provisions of the bill.

The first part of the pamphlet is a summary. The second part discusses the tax and other provisions of present law (i.e., the Comprehensive Environmental Response, Compensation, and Liability Act). The third part reviews the operation of the current Superfund program. Part four explains the provisions of H.R. 5640 along with amendments to the tax section recommended by the Committee on Energy and Commerce. (The brief description of the non-tax section of the bill is provided for the convenience of the members of the Committee on Ways and Means; additional detail is available in the Energy and Commerce Committee report on H.R. 5640.) Part five analyzes the issues relating to the tax provisions of the bill. The last part presents estimates of the revenue effect of the bill.

I. SUMMARY

A. Present Law

Hazardous Substance Response Trust Fund

Under present law, excise taxes are imposed on crude oil and certain chemicals, and revenues equivalent to these taxes are deposited into the Hazardous Substance Response Trust Fund. These amounts are available for expenditures incurred in connection with releases or threats of releases of hazardous substances into the environment. These provisions were enacted in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), which established a comprehensive system of notification, emergency response, enforcement, and liability for hazardous spills and uncontrolled hazardous waste sites.

The crude oil tax of 0.79 cent per barrel is imposed on the receipt of crude oil at a U.S. refinery, the import of crude oil and petroleum products, and the use or export of domestically produced crude oil (if the tax has not already been paid).

The tax on chemicals is imposed on the sale or use of 42 specified organic and inorganic substances if they are produced in or imported into the United States. The taxable chemicals generally are chemicals that are hazardous or chemicals which may create hazardous products or wastes when used. The rates vary from 22 cents per ton to $4.87 per ton.

The taxes generally will terminate after September 30, 1985. However, the taxes would be suspended during calendar years 1984 or 1985, if, on September 30, 1983, or 1984, respectively, the unobligated trust fund balance were to exceed $900 million, and if the unobligated balance on the following September 30 would exceed $500 million, even if these excise taxes were to be suspended for the calendar year in question. Further, the authority to collect taxes will terminate when cumulative receipts from these taxes reach $1.38 billion.

Post-closure Liability Trust Fund

Effective after September 30, 1983, an excise tax of $2.13 per dry weight ton is imposed on hazardous waste which is received at a qualified hazardous waste disposal facility and which will remain at the facility after its closure. These tax receipts are deposited into the Post-closure Liability Trust Fund. This trust fund is to assume completely the liability, under any law, of owners and operators of closed hazardous waste disposal facilities which meet certain conditions. These provisions were enacted in CERCLA.

Authority to collect the tax will be suspended for any calendar year after 1984, if the unobligated balance in the Trust Fund exceeds $200 million on the preceding September 30. Further, authority to collect the tax will terminate when cumulative receipts from the crude oil and chemical excise taxes described above reach $1.38 billion, or, if earlier, after September 30, 1985.

B. H.R. 5640

The bill, H.R. 5640, as reported by the Committee on Energy and Commerce, would continue and expand the Hazardous Substance Response Trust Fund by providing for an additional $9.5 billion in funding for the trust fund over the period October 1, 1985, through September 30, 1990. Under the bill, the purposes of the Trust Fund would be expanded to include response to releases of petroleum and petroleum products and the financing of certain emergency relief and health effect studies, certain toxicological profiles, and certain hazard evaluation projects.

To finance the expanded superfund program, the bill would extend the petroleum tax imposed under present law and increase the rate from 0.79 cent a barrel to 4.5 cents a barrel. Similarly, the excise tax on feedstock chemicals would be increased and applied to 20 additional feedstock chemicals. Under an amendment recommended by the Energy and Commerce Committee, an alternative 5-percent tax would be imposed on the landed value of certain imported substanced manufactured from feedstock chemicals. The bill would also impose a new tax on the disposal of hazardous substances after December 31, 1986, and before October 1, 1990.

The bill would also repeal the Post-closure Tax and Trust Fund provided for under present law.

With respect to the program to be conducted using superfund monies, the bill would require that no fewer than 1,600 sites be placed on the National Priorities List by 1988 and that the EPA begin cleanup work at no fewer than 150 sites each year. The bill would also clarify the liability of private parties for cleanup costs incurred by the Superfund and would permit citizens' suits to force the EPA administrator to perform any act or duty required under CERCLA, as amended, which is not discretionary. Finally, the bill provides for an extensive regulatory program relating to leaking underground storage tanks and makes Superfund money available to cleanup leaks from underground storage tanks including tanks that store petroleum or petroleum products.

II. PRESENT LAW

A. Tax Provisions

1. Hazardous Substance Response Taxes and Trust Fund

Hazardous Substance Response Trust Fund

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (P.L. 96-510) establishes a comprehensive system of notification, emergency response, enforcement, and liability for hazardous substance spills and uncontrolled hazardous waste sites.

The Hazardous Substance Response Trust Fund ("Superfund") was established by CERCLA as a trust fund in the Treasury of the United States. Amounts in the Hazardous Substance Response Trust Fund are available for expenditures incurred under section 111 of CERCLA (as enacted) in connection with releases or threats of releases of hazardous substances into the environment. Allowable costs include (a) costs of responding to the presence of hazardous substances on land or in the water or air, including cleanup and removal of such substances and remedial action, (b) payment of claims for injury to, or destruction or loss of, natural resources belonging to or controlled by the Federal or State governments, and (c) certain costs related to response including damage assessment, epidemiologic studies, and maintenance of emergency strike forces.

Under CERCLA, there are appropriated to the Hazardous Substance Response Trust Fund: (1) amounts equivalent to amounts received in the Treasury under sections 4611 (pertaining to the petroleum tax) and 4661 (pertaining to the tax on feedstock chemicals); (2) amounts recovered from responsible parties on behalf of the Hazardous Substance Response Trust Fund under CERCLA; (3) penalties assessed under title I of CERCLA; and (4) punitive damages under section 107(c)(8) of CERCLA (pertaining to damages for failure to provide removal or remedial action upon order of the President).[1]

In addition to these amounts, CERCLA authorizes to be appropriated from general revenues to the Trust Fund $44 million per year for fiscal years 1981 through 1985 (i.e., an aggregate of $220 million) and, for 1985, an additional amount equal to so much of the aggregate authorized to be appropriated for 1981 through 1984 as has not been appropriated before October 1, 1984. Not more than 15 percent of the Trust Fund receipts attributable to taxes and general revenue appropriations may be used for the payment of natural resource damage claims. CERCLA further provides that claims against the Hazardous Substance Response Trust Fund may be paid only out of the fund. If, at any time, claims against the fund exceed the balance available for payment of those claims, the claims are to be paid in full in the order in which they were finally determined.

---

[1] The fund also may be used for payment of claims asserted and compensable but unsatisfied under section 311 of the Clean Water Act. All moneys recovered under section 311(b)(6)(B) of the Clean Water Act were appropriated to the Trust Fund. These claims and moneys involve certain costs arising before the date of enactment of CERCLA.

The Trust Fund has authority to borrow for the purposes of paying response costs in connection with a catastrophic spill or paying natural resource claims. Outstanding advances at any time may not exceed estimated tax revenues for the following 12 months; advances for paying natural resource claims may not exceed 15 percent of such revenues. All advances must be repaid by September 30, 1985.

The Hazardous Substance Response Trust Fund is managed by the Secretary of the Treasury, who is required to report annually to Congress on the financial condition and operations of the fund.

Petroleum tax

Present law (sec. 4611 of the Code) imposes an excise tax (the "petroleum tax") of 0.79 cents per barrel on domestic crude oil and on petroleum products (including crude oil) entering the United States for consumption, use, or warehousing. The tax on domestic crude oil is imposed on the operator of any United States refinery receiving such crude oil, while the tax on imported petroleum products is imposed on the person entering the product into the United States for consumption, use, or warehousing. If crude oil is used in, or exported from, the United States before imposition of the petroleum tax, the tax is imposed on the user or exporter of the oil.

Domestic crude oil subject to tax includes crude oil condensate and natural gasoline, but not other natural gas liquids. Taxable crude oil does not include oil used for extraction purposes on the premises where it was produced, such as for powerhouse fuel or for reinjection as part of a tertiary recovery process. In addition, the term crude oil does not include synthetic petroleum (e.g., shale oil, liquids from coal, tar sands, biomass, or refined oil).

Petroleum products which are subject to tax upon being entered into the United States include crude oil, crude oil condensate, natural and refined gasoline, refined and residual oil, and any other hydrocarbon product derived from crude oil or natural gasoline which enters the United States in liquid form. For purposes of determining whether crude oil or petroleum products (and chemicals subject to the feedstock tax) have been produced in, entered into, or exported from the United States, the term United States means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, and any possession of the United States. The United States also includes the Outer Continental Shelf areas and foreign trade zones located within the United States. There is no exception for bonded petroleum products. Revenues from the petroleum tax are not paid to Puerto Rico or the Virgin Islands under the cover over provisions of section 7652 of the Code.

Present law specifies that the petroleum tax (under Code section 4611) is to be imposed only once with respect to any petroleum product. Thus, anyone who is otherwise liable for the tax may avoid payment by establishing that the tax already has been imposed with respect to that product.

Amounts equivalent to the revenues from the petroleum tax are deposited, together with amounts equivalent to the revenues from the tax on feedstock chemicals and certain other amounts, in the Hazardous Substance Response Trust Fund (discussed below).

The petroleum tax is scheduled to expire on September 30, 1985. Present law also provides that if on September 30, 1983, or September 30, 1984, (1) the unobligated balance in the Hazardous Substance Response Trust Fund exceeds $900 million and (2) the Secretary of the Treasury, after consultation with the Administrator of the Environmental Protection Agency, determines that such unobligated balance will exceed $500 million on September 30 of the following year if no tax is imposed under section 4611 (relating to the petroleum tax) or section 4661 (relating to the tax on feedstock chemicals) of the Code during the calendar year following the date referred to above, then no tax is to be imposed during the first calendar year beginning after the first date referred to above. (As of September 30, 1983, the unobligated balance in the Hazardous Substance Response Trust Fund was approximately $332.8 million.) Further, the authority to collect the tax will terminate when cumulative receipts from the petroleum and chemical taxes reach $1.38 billion (sec. 303 of CERCLA).

Tax on feedstock chemicals

Present law (sec. 4661 of the Code) also imposes a tax on the sale or use of 42 specified chemical substances ("feedstock chemicals") by the manufacturer, producer, or importer thereof. These chemicals generally are hazardous substances or may create hazardous products or wastes when used. The tax is imposed on feedstock chemicals manufactured in the United States or entered into the United States for consumption, use, or warehousing. The tax rates are specified per ton of taxable chemical, and vary from 22 cents to $4.87 per ton. In the case of a taxable chemical which is a gas (e.g., methane), the tax is imposed on the number of cubic feet of such gas which is equivalent to 2,000 pounds on the basis of molecular weight. (See table 7, below, for list of taxable chemicals and applicable tax rates.)

Present law provides six exemptions from the tax on feedstock chemicals. Under one exemption, in the case of butane and methane, the tax is imposed only if those substances are used other than as a fuel (in which case the person so using them is treated as the manufacturer). A second exemption is provided for nitric acid, sulfuric acid or ammonia (or methane used to produce ammonia) which are used in the manufacture or production of fertilizer. This exemption applies if the manufacturer, producer, or importer of the chemicals either uses them for fertilizer or sells them to a purchaser who either uses them for fertilizer or sells them to a second purchaser who uses them for fertilizer.[2] Third, present law also provides an exemption for sulfuric acid produced solely as a byproduct of (and on the same site as) air pollution control equipment. The fourth exemption is for any substance to the extent the substance is derived from coal.

---

[2] The Tax Reform Act of 1984 modified the method under which the exemption for nitric acid, sulfuric acid, and ammonia used for fertilizer uses may be claimed. Under the 1984 Act, manufacturers or producers of those substances may sell them free of tax, if the purchaser certifies that the material will ultimately be used for fertilizer purposes; certification may be made upon the reasonable expectation of the purchaser. If the material sold tax-free is ultimately used for nonfertilizer purposes, the user is subject to the tax.

The Tax Reform Act of 1984, P.L. 98-369 added two exemptions to the tax on feedstock chemicals. First, the 1984 Act provided an exemption for petrochemicals otherwise subject to the tax (i.e., acetylene, benzene, butane, butylene, butadiene, ethylene, methane, naphtalene, propylene, toluene, and xylene) which are used for the manufacture or production of motor fuel, diesel fuel, aviation fuel, or jet fuel. (The petroleum tax will continue to apply to domestic crude oil or imported petroleum products used for these purposes.) This exception applies if the otherwise taxable substance is (1) added to a qualified fuel, (2) used to produce another substance that is added to a qualified fuel, or (3) sold for either of the uses described in (1) or (2), above. Second, the 1984 Act provides that the transitory existence of cupric sulfate, cupric oxide, cuprous oxide, zinc chloride, zinc sulfate or lead oxide during a metal refining process will not be subject to tax if the compound exists in the process of converting or refining non-taxable metal ores or compounds into other (or more pure) non-taxable compounds. (If a substance is removed in the refining process, tax will be imposed even if the substance is later reintroduced to the refining process.)[3]

These provisions will be effective as if enacted as part of the Hazardous Substance Response Revenue Act of 1980.

Under present law, if a taxpayer uses a taxable chemical prior to any sale, the tax is imposed as if the chemical had been sold. Where a taxable chemical is used to manufacture or produce a second taxable chemical, an amount equal to the tax paid on the first chemical is allowed as a credit or refund (without interest) to the manufacturer or producer of the second chemical (but not in an amount exceeding the tax imposed on the second chemical). Thus, the imposition of tax more than once on the same substance is avoided.

Amounts equivalent to the revenues from the tax on feedstock chemicals are deposited in the Hazardous Substance Response Trust Fund. The tax is scheduled to expire, together with the petroleum tax, on September 30, 1985, with a provision for earlier termination if the unobligated balance in the Hazardous Substance Response Trust Fund exceeds $900 million (see description under petroleum tax). Further, the authority to collect the tax will terminate when cumulative receipts from the petroleum and chemical taxes reach $1.38 billion (sec. 303 of CERCLA).

---

[3] Proposed regulations published by the Treasury Department on October 20, 1983, had provided that (1) the addition of substances (such as toluene) to gasoline or the use of a light hydrocarbon stream containing taxable chemicals (such as benzene, toluene, or xylene) to make gasoline was subject to tax as a use of feedstock chemicals, and (2) the creation of a metal compound (such as cupric sulfate or similar substances) in a metal refining process would give rise to a tax on use when that substance is consumed in the refining process. The 1984 Act effectively overruled these regulations.

2. *Post-closure Tax and Trust Fund*

Post-closure Liability Trust Fund

CERCLA established the Post-closure Liability Trust Fund in the United States Treasury. The Post-closure Liability Trust Fund is to assume completely the liability, under any law (including the liability provisions of CERCLA), of owners and operators of hazardous waste disposal facilities granted permits and properly closed under subtitle C of the Resource Conservation and Recovery Act (Title II of the Solid Waste Disposal Act). This transfer of liability to the Trust Fund may take place after (1) the owner and operator of the facility has complied with the requirements under RCRA which may affect the performance of the facility after closure, and (2) the facility has been closed in accordance with the regulations and the conditions of the permit, and the facility has been monitored (as required by the regulations and permit) for a period not to exceed 5 years after closure to demonstrate that there is no substantial likelihood that any migration offsite or release from confinement of any hazardous substance or other risk to public health or welfare will occur (sec. 107(k) of CERCLA). The transfer of liability is to be effective 90 days after the owner or operator of the facility notifies the Administrator of the Environmental Protection Agency (and the State if it has an authorized program) that the required conditions have been satisfied. In addition to payment of damages and cleanup expenses for such sites, the fund also may be used to pay costs of monitoring and care and maintenance of a site incurred by other persons after the period of monitoring required by RCRA for facilities meeting the applicable transfer of liability requirements. The Post-closure Trust Fund does not assume the legal liability of waste generators or transporters; only the liability of owners and operators of disposal facilities is affected by the Post-closure Trust Fund.

As in the case of the Hazardous Substance Response Trust Fund, claims against the Post-closure Liability Trust Fund may be paid only out of the fund. If, at any time, claims against the fund exceed the balance available for payment of those claims, the claims are to be paid in full in the order in which they are finally determined. The Post-closure Liability Trust Fund is subject to the same administrative provisions as the Hazardous Substance Response Trust Fund, including the right to borrow limited amounts from the Treasury as repayable advances; no more than $200,000,000 of such advances to the Post-closure Liability Trust Fund may be outstanding at any time.

Tax on hazardous wastes

Present law (sec. 4681 of the Code) imposes an excise tax (the "post-closure tax") of $2.13 per dry weight ton on the receipt of hazardous waste at a qualified hazardous waste disposal facility. The tax applies only to hazardous waste which will remain at the 9 facility after the facility is closed. The tax is imposed on the owner or operator of the qualified hazardous waste disposal facility.

For purposes of the post-closure tax, hazardous waste means any waste (1) having the characteristics identified under section 3001 of the Solid Waste Disposal Act, as in effect on December 11, 1980 (other than waste the regulation of which had been suspended by Congress on that date), and (2) which is subject to reporting and recordkeeping requirements under the Solid Waste Disposal Act as in effect on that date. Qualified hazardous waste disposal facilities are facilities which have received a permit or been accorded interim status under the Solid Waste Disposal Act.

The post-closure tax applies to the receipt of hazardous waste after September 30, 1983. However, if as of September 30 of any subsequent calendar year, the unobligated balance of the Post-closure Liability Trust Fund exceeds $200,000,000, no tax is to be imposed during the following calendar year. Further, authority to collect the tax will terminate when cumulative receipts from the petroleum and chemical taxes described in the previous section reach $1.38 billion, or if earlier, after September 30, 1985 (sec. 303 of CERCLA).

B. Non-tax provisions

General provisions

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) provides a statutory scheme to insure prompt response to and cleanup of releases of hazardous substances and to place the burden of such actions on the responsible party or, in the absence of a responsible party, on producers and users of the chemical feedstocks associated with the generation of hazardous substances. In general, the law is designed to allow a governmental response to proceed where necessary, with the parties legally responsible for the release of hazardous substances later being held liable (without regard to fault) for damages and costs resulting from the release. To accomplish this, the law created the Hazardous Substance Response Trust Fund ("Superfund") to be financed by a combination of special environmental taxes and Federal appropriations and to be available for response actions and certain related liability claims.

Response authority

Under CERCLA, the President is authorized, in the case of a release or threatened release of a hazardous substance into the environment, to take whatever removal, remedial or other response action he determines to be appropriate under the National Contingency Plan (originally contained in the Clean Water Act but subsequently revised to apply to CERCLA). Releases subject to CERCLA include any release of a hazardous substance other than workplace releases, certain nuclear releases, engine exhausts, and the normal application of fertilizer. Hazardous substances are defined as toxic substances identified in specified sections of the Clean Water Act, the Clean Air Act, the Solid Waste Disposal Act, and the Toxic Substance Control Act. Hazardous substances do not include petroleum (unless specifically designated as hazardous under these laws), or natural or synthetic gases. The Environmental Protection Agency (EPA) is authorized to designate additional substances as hazardous if they present substantial danger to the public health or welfare or to the environment.

CERCLA required the Federal government to develop a national list of sites (the National Priorities List) which are serious enough to require remedial action. This National Priorties List is required to include the 400 most hazardous sites, and is required to be updated annually. In compiling this list, the EPA identifies hazardous sites and evaluates the sites, beginning with a preliminary assessment of available information and proceeding (where appropriate) to an actual site inspection. The sites are then ranked according to criteria relating to relative potential danger from the release or threatened release of hazardous substances into the air, surface water, or groundwater at the site, with the highest ranking sites being selected for the National Priorities List.

Sites which are listed on the National Priorities List are eligible for long-term cleanup actions by EPA, using money derived from the Hazardous Substance Response Trust Fund. The State in which the site is located generally is required to pay 10 percent of the costs spent in the cleanup (50 percent for State-owned and operated sites). As an alternative to proceeding with such a clean-up, the EPA has authority, under section 106 of CERCLA, to initiate enforcement actions (including civil action and administrative orders) to compel responsible parties to finance cleanup activities. The EPA also has broad authority to enter into negotiations with responsible parties regarding voluntary cleanups or cash settlements. The availability of these alternatives (i.e., negotiations, enforcement, and governmentally funded cleanups) is intended to permit a larger number of sites to be cleaned up than would be possible using any one method.

If a governmental cleanup is initiated, the EPA has further authority to allow the State to take a lead role in site response (cooperative agreements) or (if EPA takes the leading role) to follow various long-term cleanup strategies. The EPA may also initiate removal actions to prevent immediate and significant harm to human life, health, or the environment.

In addition to the cost of cleanup applications, there is authorized to be paid out of the Hazardous Substance Response Trust Fund certain unsatisfied claims for damages resulting from the release of hazardous substances, claims for injury to, or destruction of, natural resources owned or controlled by the Federal or State governments, and specified costs relating to site response or resource restoration. Payment of these claims by the fund transfers to the fund the right of the claimant to sue the party responsible for releasing the hazardous substance; thus, fund representatives may attempt to recover claim payments from the responsible party or parties. There is no general provision for private damage claims against the fund.

Liability

Section 107 of CERCLA imposes liability for cleanup costs incurred under the National Contingency Plan, and for costs associated with natural resource damages, on any person who is the owner or operator of a site or the generator or transporter of hazardous substances released into the environment. A strict liability standard (i.e., regardless of negligence) applies, with only limited defenses (including acts of war, acts of God, and acts of independent third parties where the defendant exercises due care) are allowed. No liability arises with respect to releases permitted under provisions of existing Federal laws or the application of registered pesticides. Liability under the Act is limited generally to $50 million per release, allowing owners and operators to obtain more readily insurance to cover possible costs. In addition, owners and operators of vessels and offshore facilities are required to maintain evidence of financial responsibility, and the President is authorized to provide financial responsibility requirements for onshore facilities beginning in 1985.

The amounts recovered under the provisions above are deposited in the Hazardous Substance Reponse Trust Fund. CERCLA also provides for certain penalties and punitive damages which are to be deposited in the fund. These include punitive damages of from one to three times the amount of costs incurred as a result of the failure without sufficient cause, by a person liable for a release or threatened release of a hazardous substance, to properly provide removal or remedial action upon order of the President pursuant to the act.

CERCLA also authorizes creation of an Agency for Toxic Substances and Disease Registry to improve data collection and otherwise assist in matters concerning toxic substances and human health.

Related statute: Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) provides for the regulation and control of operating hazardous waste disposal facilities, as well as the transportation, storage, and treatment of these wastes. Permits are required for treatment or storage facilities. The Environmental Protection Agency may sue to require cleanup of an active or inactive disposal site if the site is posing an imminent and substantial hazard to public health and if there is a known, solvent responsible party. However, this provision does not provide funds for cleanup of hazardous waste disposal sites when the owner is unknown, is not responsible, or is financially unable to pay for these costs.

III. OPERATION OF SUPERFUND PROGRAM UNDER PRESENT LAW

A. Superfund Program Activities

Since the Superfund program started operating in 1981, it has been involved mainly in coordinating emergency responses ("removal actions") and in identifying and evaluating abandoned waste sites in order to implement long term cleanup ("remedial action"). As of the end of fiscal year 1983, the Environmental Protection Agency (EPA) had identified 16,200 potentially hazardous sites in the United States. As shown in Table 1, preliminary assessments were completed at 7111 of these sites (44 percent). Of the sites assessed, investigations were completed at 2,197 sites, and 546 were subsequently placed on the National Priorities List (NPL) based on their high degree of hazard. The EPA estimates, assuming current ranking criteria, that between 1403 and 2200 sites will ultimately be added to the NPL.

Table 1.—Status of Potentially Hazardous Waste Sites

[Number of sites]

Site status	Through fiscal year 1983	Projected		
		Low	Middle	High
Listed in ERRIS[1]	16,200	22,000	NA	NA
Preliminary assessment	7,111	15,200	NA	NA
Site investigation	2,197	4,285	NA	NA
National Priorities List[2]	546	1,403	1,800	2,200

[1] The Emergency Remedial and Response Information System (ERRIS) is an inventory of potentially dangerous sites maintained by the EPA.

[2] The National Priorities List contains sites determined to require remediation.

Source: Memorandum to Alvin Alm and Lee Thomas from Alvin R. Morris, Director of Superfund Task Force, Environmental Protection Agency, Office of Solid Waste and Emergency Response (December 8, 1983), p. 12. Updated with information provided by EPA's Superfund Reauthorization Task Force.

As shown in Table 2, of the 546 sites on the NPL, the EPA anticipates beginning initial remedial cleanup measures on 55 sites by the end of fiscal year 1984. To date, 6 NPL sites have been cleaned and removed from the NPL. The EPA has implemented more removal actions (which are generally less expensive and shorter term) than remedial actions. By the end of FY 1984, EPA anticipates completing 321 removal actions.

Table 2.—Superfund Program Activities

[Number of sites]

Action	Fiscal year—				Total
	1981	1982	1983	1984 [1]	
Remedial:					
Preliminary assessment	[2] 2,610	[2] 2,610	1,891	4,000	11,111
Site inspection	[2] 823	[2] 824	550	1,300	3,497
Feasibility study	21	30	85	55	172
Design	8	8	11	30	57
Initial remedial measure	0	12	18	25	55
Completion	0	0	0	6	6
Removal:					
Immediate	33	50	88	150	321
Planned	0	1	6	20	27
Enforcement:					
Feasibility study	0	0	30	25	55

[1] Projected.
[2] Estimate.

Source: Memorandum to Alvin Alm and Lee Thomas from Alvin R. Morris, Director of Superfund Task Force, Environmental Protection Agency, Office of Solid Waste and Emergency Response (December 8, 1983), p. 12. Updated with information provided by EPA's Superfund Reauthorization Task Force.

B. Hazardous Substance Response Trust Fund

Outlays

Funding for remedial and removal actions comes from the Hazardous Substance Response Trust Fund ("Superfund"). As a result of the long start-up time required for planning site remediation projects, outlays from the Superfund have been substantially less than receipts. As shown in Table 3, outlays through 1983 were $235.4 million, about 30 percent of the $784 million received by the fund in this period.

No claims for injury to, or destruction or loss of, natural resources have yet been paid by the fund. However, 57 claims for such damages, totalling $2.7 billion, have been submitted to EPA. EPA has rejected the claims because they have not been presented to the responsible party and a restoration plan has not been prepared, as required by CERCLA. These claims could be submitted again after these conditions are satisfied.

Table 3.—Superfund Accounts

[In millions of dollars]

Item	Fiscal year—			
	1981	1982	1983	Total
Receipts	145.0	307.4	331.6	784.0
Transfer from Coast Guard	6.7	0	0	6.7
Excise Taxes	127.9	244.0	230.2	602.1
Appropriations (general revenue)	9.0	26.6	40.0	75.6
Interest income	1.3	34.5	61.0	96.8
Recoveries	0	2.3	.4	2.7
Outlays	8.0	79.6	147.8	235.4
End of year cash balance	136.9	364.8	548.6	NA
Budget Obligation	40.2	180.7	230.2	451.2
Removal and remediation	30.7	149.0	194.3	374.0
Enforcement program	2.5	8.4	17.7	28.6
Research and development	4.7	13.8	6.8	25.3
Management and support service	2.3	9.5	11.4	23.2
Unobligated balance	104.8	231.5	332.8	NA

Source: (1) Department of Treasury, *Treasury Bulletin,* First quarter, Fiscal 1984, p. 208. (2) Department of Treasury, "Second Annual Report on the Financial Condition and Results of the operations of the Hazardous Substance Response Trust Fund," (Sept. 30, 1982), p. 6.

Receipts

The excise taxes on 42 chemicals and petroleum ("feedstock tax") enacted in 1980 has been the primary source of Superfund revenue. In addition to the feedstock tax, appropriations from general revenues provided about one-tenth of the Superfund's financing in the first three years of operation. Interest income has become an increasingly important source of revenue as the fund's balance has increased (due to receipts in excess of outlays).

When the Superfund was enacted, it was envisioned that collections from parties responsible for hazardous waste sites would replenish the trust fund. However, cost recoveries have been small, with only $5.06 million collected through May 1984. Cost recovery proceedings are generally initiated after remediation is completed and total costs are known. The EPA expects cost recovery actions could eventually generate $44 million per year.[4] Part of the cost of cleaning Superfund sites is paid by responsible parties directly, under settlement agreements with the EPA, and, thus, is not recovered by the Superfund. As shown in Table 4, private parties agreed to expend $280 million on hazardous waste site cleanups of which $220 million is allocated to sites on the National Priorities List.

Table 4.—Settlement Agreements

[In millions of dollars]

Site	Fiscal year—				Total
	1981	1982	1983	1984	
National Priorities List	12.2	42.8	58.3	107.0	220.3
Other	19.0	2.7	33.8	4.6	60.1
Total	31.2	45.5	92.1	111.6	280.4

Source: EPA, Superfund Reauthorization Task Force.

Feedstock tax

The feedstock tax has generated about three-quarters of the Superfund receipts, although tax revenues are running 20 percent less than the $307 million per year rate anticipated in 1980. The shortfall is in part due to the economy-wide recession during the early part of the period during which the taxes have been effective, which diminished demand for the products that are made from these feedstocks. As shown in Table 5, the portion of the feedstock tax generated from each category (petrochemicals, inorganic chemicals, and petroleum) has been extremely stable, and is remarkably close to the original estimate (65 percent from petrochemicals, 15 percent from inorganic chemicals, and 20 percent from petroleum).

---

[4] Memorandum to Alvin Alm and Lee Thomas from Alvin R. Morris, Director of Superfund Task Force, Environmental Protection Agency, Office of Solid Waste and Emergency Response (December 8, 1983).

Table 5.—Revenues From Feedstock Tax [1]

[Dollar amounts in millions]

Feedstock	Fiscal year—							
	1981 Quarters III-IV		1982 Quarters I-IV		1983 Quarters I-III		Total 81-83	
	($)	(%)	($)	(%)	($)	(%)	($)	(%)
Petrochemicals	86	66.2	157	65.6	108	66.0	350	65.9
Inorganic chem	24	18.8	42	17.4	29	18.0	95	17.9
Petroleum	19	14.9	39	16.4	25	15.6	84	15.8
Not allocated	0	0.0	1	0.6	1	0.4	2	0.4
Total	129	100.0	239	100.0	163	100.0	531	100.0
Quarterly average	65		60		54		59	

[1] In these data, excise taxes are allocated to the fiscal quarter in which the liability arises (which may be earlier than the quarter in which Treasury receives payment).

Source: Dept. of Treasury, Internal Revenue Service, *SOI Bulletin*, Vol. 3, No. 2, (Fall 1983), pp. 31-34; and updated information from the Statistics of Income Branch of the IRS.

The Internal Revenue Service estimates that the feedstock tax, as of June 1983, was paid by just 496 companies. Although the average annual feedstock tax liability for 1983 was approximately $1.3 million per taxpayer, it appears that most of the revenue is collected from a small number of companies with very large production volumes. ARCO Chemical Co. estimates that the 12 largest taxpayers account for almost 70 percent of feedstock tax revenues.[5]

---

[5] Testimony of Harold A. Sorgenti, president of ARCO Chemical Co., before the Senate Environment and Public Works Committee, May 23, 1984.

C. Studies

Section 301 of the CERCLA required that 9 studies be conducted to evaluate various aspects of the Superfund program and alternatives by December 1984. It was envisioned that these studies would be used by Congress in the course of reauthorizing the Act. The EPA anticipates that drafts of all these studies will be released for public comment by October 15, 1984 (see Table 6).

Table 6.—Section 301 Studies

Study	Topic
A	Effectiveness of CERCLA and Superfund.
B	Superfund Receipts and Outlays.
C	Projected Future Funding Needs and Threat to Public. Health and Welfare.
D	Cost Recoveries and Settlements.
E	Record of State Participation.
F	Impact of Tax on Balance of Trade.
G	Feasibility and Desirability of Alternative Tax Schedules.
H&I	Effects of Tax on Copper, Lead, Zinc Oxide, Fertilizer Feedstocks, and Coal Derived substances.

IV. DESCRIPTION OF H.R. 5640 AND AMENDMENTS RECOMMENDED BY THE COMMITTEE ON ENERGY AND COMMERCE

A. Amendments to Hazardous Substance Response Trust Fund

H.R. 5640 would continue and expand the Hazardous Substance Response Trust Fund by allocating to the fund amounts equivalent to the revenues derived from expanded taxes on petroleum and feedstock chemicals, the new tax on imported chemical substances, and a new waste end tax (discussed below). These taxes are intended to provide $8.4 billion from fiscal years 1986 to 1990, inclusive. The bill would also authorize general revenue appropriations to the fund of an additional $181 million for each of fiscal years 1986 and 1987 and $256 million for each of fiscal years 1988, 1989, and 1990, plus, for each such fiscal year, an amount equal to aggregate amount authorized but not yet appropriated for prior years. Total authorizations over the fiscal year 1986 to 1990 period would be $1.1 billion; taxes and general revenues combined would be $9.5 billion.

Under the bill, the expenditure purposes of the Hazardous Subtance Response Trust Fund would be amended to conform to the expanded list of costs which could be incurred under section 111(c) of CERCLA as amended by the bill, including costs incurred in connection with emergency relief and health effects studies under section 112 of the bill, costs incurred in preparing toxicological profiles, and costs incurred in evaluating potential hazards posed by facilities pursuant to petitions filed by any person. The bill would further specify that no more than 6 percent (as opposed to 15 percent under present law) of fund amounts attributable to the petroleum and chemical taxes and general revenue appropriations may be made available for the payment of damage claims for injury to, or destruction or loss of, natural resources owned or controlled by the Federal or State governments as a result of a release or threat of release of a hazardous substance.

The bill would continue the present law provisions regarding administration of the Hazardous Substance Response Trust Fund, including the authorization to borrow limited amounts from the Treasury as repayable advances. Any such advances would be required to be repaid before September 30, 1990.

These amendments would take effect on October 1, 1985.

B. Tax provisions

Overview

H.R. 5640, as reported by the Committee on Energy and Commerce ("the bill"),[6] would extend the petroleum tax (sec. 4611) and the tax on feedstock chemicals (sec. 4661) for 5 years, through September 30, 1990. The amount of revenue to be generated by these taxes would be increased approximately five-fold in order to fund an expanded Hazardous Substance Response Trust Fund ("superfund") program. In the case of the petroleum tax, this would be accomplished by an increase in the tax rate from 0.79 cent per barrel to 4.5 cents per barrel. In the case of feedstock chemicals, the tax rates would be increased and the tax would be extended to 20 additional feedstock chemicals. In addition, an amendment recommended by the Energy and Commerce Committee would impose an alternative 5-percent tax on certain imported substances which contain taxable feedstock chemicals.

Further, the bill would establish a new "waste end" tax on the disposal of hazardous substances which is required to be carried out in compliance with subtitle C of the Solid Waste Disposal Act, to be effective from January 1, 1987, though September 30, 1990. The revenues from this tax (together with the petroleum tax and the tax on feedstock chemicals) would be deposited in the expanded Hazardous Substance Response Trust Fund.

Finally, the bill would repeal the post-closure liability tax and trust fund.

Petroleum tax

The bill would increase the present law petroleum tax from 0.79 cent per barrel to 4.5 cents per barrel, effective October 1, 1985. Amounts equivalent to this tax would continue to be deposited in the Hazardous Substance Response Trust Fund. Under the bill, the petroleum tax would expire on September 30, 1990. Additionally, under an amendment recommended by the Committee on Energy and Commerce, if (1) the unobligated balance in the Hazardous Substance Response Trust Fund were to exceed $3.2 billion on September 30, 1988, or September 30, 1989, and if (2) the Secretary of the Treasury, after consultation with the Administrator of the Environmental Protection Agency, were to determine that such unobligated balance would exceed $1.9 billion on September 30 of the following year if no feedstock chemical or petroleum tax were imposed during the calendar year following the date referred to above, then no tax would be imposed by this section during the first calendar year beginning after the first date referred to above.

Tax on feedstock chemicals

The bill would expand the present law tax on feedstock chemicals (sec. 4661) by (1) increasing the tax generally by three -to five-fold, on substances which are taxable under present law, and (2) adding approximately 20 additional substances to the list of taxable items. According to the report of the Committee on Energy and Commerce, H. Rep. 98-890, accompanying H.R. 5640, 98th Cong., 2d Sess., the inclusion of taxable items was based on criteria applied under present law, including the generation of significant volumes of hazardous wastes during the manufacture of the taxable substance and its intermediate or final products; the hazardous nature of the taxable substance in any of its forms (including its intermediate or final products); the capability of the taxable substance to increase the hazard potential of other substances; and the production of the taxable substance in significant volumes, and on certain additional criteria, including finding of the taxable substance, in its raw, intermediate or final product forms, at Superfund sites identified and evaluated by EPA; the finding of hazardous wastes generated in the manufacture of the taxable substance or its intermediate or final products at Superfund sites; and the definition of hazardous substances under relevant provisions of law. The rates for each taxable substance were generally determined by applying the lower of (1) 3 percent of the substance's projected 1986 sales price, or (2) a predetermined cap equal to $29.87 per ton for organic substances and $14.94 per ton for inorganic substances. These levels, in turn, were selected in order to meet an intended revenue target. In certain cases (e.g., aluminum), a lower rate was chosen to reflect the contribution of the substance to contamination of Superfund sites. Table 7 compares the list of taxable substances and applicable tax rates under present law and under the bill.

---

[6] The Committee on Energy and Commerce did not amend the tax provisions (Title V) of H.R. 5640 as introduced, but did agree to recommend various amendments to these provisions to the Committee on Rules and to the House of Representatives.

Table 7.—Current and Proposed Feedstock Tax Rates

[Cost per ton]

Chemical	Current law	H.R. 5640	Percent change
Petrochemicals			
Acetylene	$4.87	$29.87	513
Benzene	4.87	14.88	206
Benzene (derived from coal)	0	14.88	Added
Benzene (mixed into gasoline)	0	2.88	Added
Butadiene	4.87	24.80	409
Butane	4.87	7.09	46
Butylene	4.87	9.92	104
Coal-derived light oils	0	10.63	Added
Coal tars	0	3.93	Added
Ethylene	4.87	17.71	264
Methane	3.44	2.48	−28
Napthalene	4.87	13.82	184
Napthalene (derived from coal)	0	13.82	Added
Propylene	4.87	13.82	184
Toluene	4.87	12.75	162
Toluene (derived from coal)	0	12.75	Added
Toluene (mixed with gasoline	0	2.88	Added
Xylene	4.87	13.11	169
Xylene (derived from coal)	0	13.11	Added
Xylene (mixed into gasoline)	0	2.88	Added

Table 7.—Current and Proposed Feedstock Tax Rates—Continued

[Cost per ton]

Chemical	Current law	H.R. 5640	Percent change
Inorganic Chemicals			
Aluminum	0	1.53	Added
Ammonia	4.45	7.44	67
Antimony	4.45	14.94	236
Antimony trioxide	3.75	14.94	298
Arsenic	4.45	14.94	236
Arsenic trioxide	3.41	14.94	338
Asbestos	0	13.92	Added
Barium sulfide	2.30	14.94	550
Boron trioxide	0	14.94	Added
Bromine	4.45	14.94	236
Cadmium	4.45	14.94	236
Chlorine	2.70	5.67	110
Chromite	1.52	2.55	68
Chromium	4.45	14.94	236
Cobalt	4.45	14.94	236
Cupric oxide	3.59	14.88	314
Cupric sulfate	1.87	14.88	696
Cuprous oxide	3.97	14.88	275
Hydrochloric acid	0.29	0.34	17
Hydrogen flouride	4.23	14.94	253
Lead	0	14.94	Added
Lead oxide	4.14	0	Dropped
Lithium carbonate	0	2.77	Added
Manganese	0	14.94	Added
Mercury	4.45	14.94	236
Nickel	4.45	14.94	236
Nitric acid	0.24	0.28	17
Phosphoric acid	0	0.30	Added
Phosphorous	4.45	[1] 14.94	236
Potassium dichromate	1.69	14.94	784
Potassium dihydroxide	0.22	0.26	18
Silenium	0	14.94	Added
Sodium dichromate	1.87	14.94	699
Sodium hydroxide	0.28	0.33	18
Stannic chloride	2.12	14.94	605
Stannous chloride	2.85	14.94	424
Sulfuric acid	0.26	0.31	19
Uranium oxide	0	1.44	Added
Vanadium	0	2.48	Added
Zinc	0	14.94	Added
Zinc chloride	2.22	0	Dropped
Zinc sulfate	1.90	0	Dropped
Number of taxed chemicals	42	59	

---

[1] Phosphorous would be taxed at $6.65 per ton under an Energy and Commerce Committee recommended amendment to H.R. 5640.

The bill would retain the present law exemptions for methane or butane used as a fuel; for nitric acid, sulfuric acid, or ammonia (or methane used to produce ammonia) which are used in the production of fertilizer; and for sulphuric acid produced as a byproduct of air pollution control. However, the bill would repeal the present law exemption for benzene, toluene, xylene, napthalene, tars, and light oils derived from coal. Additionally, as indicated in the above table, the bill would impose tax on benzene, toluene, and xylene mixed to produce gasoline. The report of the Committee on Energy and Commerce indicates that this is to include all volumes of such substances which are contained in gasoline at the end of the refining process.

Termination date.—The tax on feedstock chemicals would expire on September 30, 1990, with a provision for possible early termination, as described above in connection with the petroleum tax.

Amendments Recommended by the Committee on Energy and Commerce

In approving H.R. 5640, the Committee on Energy and Commerce recommended several amendments to the tax on feedstock chemicals as described above. First, the Committee on Energy and Commerce agreed to recommend an amendment providing for a credit or refund for the tax on any chemical which is shipped (directly or though an intermediary) for export.

Second, the Committee on Energy and Commerce agreed to recommend an amendment providing an exemption for nonferrous metallic compounds (or solutions or mixtures containing such compounds) which have a transitory presence during any process of smelting, refining, or otherwise extracting metals from metal-bearing substances (including ores or concentrates) which are not themselves subject to the tax. The tax would be reimposed if such compounds were removed from the extracting process for use, sale, disposal, or storage. (This is similar to the provision enacted in the Tax Reform Act of 1984.) An exemption would likewise be provided for nonferrous metals present in ores, concentrates, or other prerefining metal-bearing material, before the state of processing at which the metal is commercially known or sold as such (the amendment specifies that such metals would not be deemed to be "used" within the meaning of section 4661(c) when utilized as new scrap for recycling or production of such metals).[7] Additionally, an exemption would be provided for any metals which (1) have previously been taxed in their current cycle of production and use; (2) are produced from new scrap when such new scrap has been derived from metal previously taxed in its current cycle of production and use; or (3) are contained in a fabricated product, alloy or compound when such metal was previously taxed in its current cycle of production and use.

---

[7] For purposes of these exemptions, nonferrous metals include the nonferrous metallic content of (1) any fabricated or semi-fabricated product, shape or form, and other product, which has been customarily considered by agencies of the United States Government in calculating annual production, consumption, and import statistics for such metal, (2) any alloy or compound containing at least five percent of such metal by weight, and (3) lead acid batteries; provided, however, that the Commissioner of Internal Revenue may establish reasonable de minimis levels for exempting from taxation the metal content of any such product or alloy. Except for lead acid batteries, no tax would be imposed on the metal content of any consumer product.

Third, the Committee on Energy and Commerce agreed to recommend an amendment allowing the tax rate for certain recycled metals (including aluminum, chromium, cobalt, lead, nickel, and any other metal recovered or diverted from solid waste) to be reduced by up to 50 percent, if a determination has been made regarding the effect of such reduction on revenues transferred to the Hazardous Substance Response Trust fund and the effect of the tax rate on the level of recycling in the recycling industry. The reduction would not be available to any taxpayer against whom an action or proceeding has been brought under CERCLA or under section 7003 of the Solid Waste Disposal Act, if the taxpayer has failed or refused to comply with an order or judgment issued in such proceeding. For purposes of this provision, solid waste would have the meaning provided by section 1004 of the Solid Waste Disposal Act. The committee report indicates that the Committee on Energy and Commerce expects other committees reviewing the legislation to take the factors discussed above (i.e., effect on revenues available for Superfund and effect on the recycling industry) into account in determining the final tax rate for the covered substances.

Fourth, an amendment recommended by the Committee on Energy and Commerce would lower the tax rate imposed on phosphorous under the bill from $14.94 to $6.65 per ton. The committee report indicates that this amendment corrects a mathematical error made during the compilation of the list of taxable chemicals.

Finally, the Committee on Energy and Commerce agreed to recommend an amendment making certain modifications in the exemption for certain substances used in the production of fertilizer. Under this amendment, phosphoric acid (together with nitric acid, sulfuric acid, ammonia, and methane used to produce ammonia) would be treated as an exempt substance when used (or resold for use) in the production of fertilizer. Second, the exemption generally would be applied under Treasury regulations. Finally, the amendment would specify that (1) the direct application of a qualifying substance as fertilizer meets the requirements of the provision, and (2) any person who uses or resells a covered substance for use or resale otherwise than in the production of fertilizer is to be treated as the manufacturer of the substance and is therefore to be liable for the tax. The amendment would retain the provision of H.R. 5640 allowing resales for ultimate use in fertilizer production to qualify for the exemption.

Environmental tax on certain imported chemical substances

In addition to the amendments above, the Committee on Energy and Commerce agreed to recommend an amendment which would impose a new environmental tax on five percent of the landed value of certain substances entered into the United States. A taxable substance for purpose of this tax would be any substance immediately derived from a taxable chemical listed in the table under section 4661. A taxable substance would be considered to be "immediately derived" from a chemical or chemicals listed under section 4661 if it is directly and substantially manufactured or produced from the listed chemical or chemicals as raw material or feedstock. The Treasury would be directed to issue regulations establishing guidelines for determining the percentage of production cost or raw material cost of a substance which must be represented by use of section 4661 chemicals as raw material or feedstock in order for the resulting substance to be considered directly and substantially produced from the listed chemicals.

Under the amendment, no tax would be imposed on any substance unless the chemical from which the substance was manufactured or produced would itself be taxable under section 4661 if manufactured or produced in the United States or if entered into the United States (in its original form) for consumption, use, or warehousing. Thus, the exemptions applicable under section 4661 (as modified by the bill) would remain applicable in determining taxability of a substance under the tax on imported chemical substances. For example, a fertilizer produced with substances which (if otherwise taxable) would qualify for an exemption under section 4661, by virtue of their use in fertilizer production, would not be subject to the tax.

Where applicable, the tax on imported chemical substances would be paid by the importer or ultimate purchaser of a taxable substance. If a feedstock tax is paid on any chemical, and that chemical is subsequently used to manufacture or produce a substance which is taxable under the tax on imported chemical substances, then the tax paid under section 4661 is to be allowed as a credit or refund (without interest) against the tax on the imported chemical substance (but not in excess of the amount of the latter tax).

If the importer or ultimate purchaser of a taxable substance can establish the amount of chemicals listed in section 4661(b) that were used in the manufacture or production of the substance, the amendment would allow that importer or ultimate purchaser, under Treasury regulations, to pay the taxes that would have been paid under section 4661(a) on the sale or use of such chemicals, in lieu of the tax on the imported chemical substance.[8] The tax on imported chemical substances would be effective on October 1, 1985.

Waste end tax

The bill would impose a tax, effective January 1, 1987, on the disposal of any hazardous substance, if such disposal is required to be carried out in compliance with Subtitle C of RCRA. "Hazardous substances" would have the meaning provided by section 101 of CERCLA, while the term "disposal" would have the same meaning as under section 1004 of the Solid Waste Disposal Act. Under a special rule, the storage of hazardous substances for more than one year would also be subject to tax. The committee report further states that the adoption of the CERCLA definition of hazardous substance was intended to provide a broader definition than that presently provided under the Solid Waste Disposal Act.

The tax rates under the bill would be as follows:

---

[8] The effective date and the use of revenues derived from the tax on imported chemical substances are not specified in the amendment. However, it appears that the tax would be effective for the same period as the tax on feedstock chemicals, and that revenues from the tax would be deposited in the Hazardous Substance Response Trust Fund.

(1) In the case of any hazardous substances for which there is in effect a regulatory reportable quantity requirement of one pound or less (pursuant to section 102 of CERCLA), the tax rate would be $30 for each metric ton (1,000 kilograms) which is not disposed of by underground injection and $15 for each metric ton which is disposed of by underground injection.[9]

(2) In the case of any hazardous substance for which there is in effect a regulatory reportable quantity requirement of more than one pound or for which no reportable quantities have yet been specified in regulations, the tax rate would be $10 for each metric ton which is not disposed of by underground injection and $5 for each metric ton which is disposed of by underground injection.

(3) In the case of mixtures of hazardous substances referred to in paragraph (1) and hazardous substances referred to in paragraph (2), the rates applicable under paragraph (1) would apply. The committee report states the intention of Committee on Energy and Commerce that, in applying this rule to continual flow deep well injections, a method will be developed for evaluating such mixtures in segments so that the higher tax is only paid on the actual volume of the mixtures which contains the most hazardous types of substances.

The waste end tax would be paid by the owner or operator of a facility for which a permit is in effect under subtitle C of the Solid Waste Disposal Act. In the case of disposal other than at a facility for which such a permit is in effect, the tax would be paid by the person disposing of the hazardous substance.

Exemptions.—The following disposals of hazardous substances would be exempt from tax under the bill:

(1) The disposal of any substance by any person in the course of carrying out any removal or remedial action under CERCLA.

(2) The disposal of any substance by incineration in accordance with the standards applicable to incineration facilities permitted under subtitle C of RCRA.

(3) The disposal of any solid waste which is required to be studied under section 8002(f) or (p) of the Solid Waste Disposal Act (unless, after the completion of the studies, a law is enacted subjecting such waste to the tax).

The committee report notes that, in exempting substances disposed of in the course of carrying out any removal or remedial action covered by CERCLA (item (1) above), the bill is intended to include in the exemption from taxation emergency removals (e.g., cleanup of spills, train or truck derailments) which are undertaken voluntarily by private parties in compliance with CERCLA requirements. The report further states that, although disposal by incineration is exempt from taxation, the bill is not intended to exempt from taxation the disposal of residues left after the completion of the incineration process which is carried out at a permitted disposal facility. Finally, the report states the intent of the Committee on Energy and Commerce that the tax will not apply to nonferrous smelter slag, acid plant blowdown, or other wastes indigenous to the process of extracting nonferrous materials from ores and concentrates, which materials are currently under study by EPA pursuant to the 1980 Solid Waste Disposal Act Amendments, and are therefore covered by item (3) above.

---

[9] An amendment recommended by the Committee on Energy and Commerce would provide a $5 per metric ton rate for all hazardous substances disposed of by underground injection.

Special rule for wastes stored more than one year.—Under the bill, waste which has been stored for one year period beginning on the date of its generation (or, if later, the date of the enactment of the bill), and which is listed or identified as a hazardous waste under section 3001 of the Solid Waste Disposal Act as of the close of such 1-year period, would be treated as disposed of on the first day after the end of such 1-year period and the waste end tax under section 4681 would be paid on that day. For purposes of this rule, wastes which are first listed or identified as hazardous wastes under section 3001 of the Solid Waste Disposal Act during the 1-year period would be treated as generated on the date of such listing. A waste would be treated as listed or identified as a hazardous waste on any date for which such a listing or identification is in effect (regardless of when the listing itself was promulgated). The committee report states that payment of the waste end tax following a 1-year storage period is to satisfy the tax obligations of the party responsible for such waste and no second tax is to be imposed if such wastes are subsequently removed from long-term storage and permanently disposed of.

Use of proceeds.—Amounts equivalent to the revenues generated by the waste end tax would be deposited in the Hazardous Substance Response Trust Fund.

Termination date.—The waste end tax would terminate on September 30, 1990.

Recommended amendments.—The Committee on Energy and Commerce agreed to recommend the following amendments to the waste end tax contained in H.R. 5640.

First, the Committee on Energy and Commerce agreed to recommend an amendment lowering the amount of the waste end tax imposed on all deep well injection wells to $5.00 per metric ton (rather than $15.00 per metric ton for substances for which there is in effect a reportable quantity of one pound or less and $5.00 per metric ton for substances having a reportable quantity of more than one pound, as under the original bill). The committee report indicates that this amendment is made in recognition of the substantial amounts of water contained in waste disposed of by underground injection and is intended to remove the disincentive to utilize this method of disposal. A further recommended amendment would clarify that underground injection for purposes of these provisions, includes (but is not limited to) wells which meet the standards applicable to class I wells under the underground injection control program of the Safe Drinking Water Act.

Second, the Committee on Energy and Commerce agreed to recommend an amendment exempting from the waste end tax the treatment of any substance in wastewater facilities utilizing biological activity or carbon adsorption treatment processes in accordance with standards applicable under subtitle C of RCRA. The committee report emphasizes that this exemption is to apply only to facilities utilizing biological activity or carbon adsorption treatments (or a combination of the two processes) in compliance with relevant Federal environmental law and regulations. The amendment does not specify the status of treatment processes other than biological activity or carbon adsorption for purposes of the waste end tax.

Finally, an amendment recommended by the Committee on Energy and Commerce would exempt from the waste end tax the disposal of any substance for energy recovery in accordance with standards applicable to energy recovery facilities permitted under subtitle C of RCRA, if a study commissioned by EPA has certified that such facilities are in compliance with the destruction efficiency standards applicable to incinerators permitted under that Act.

Repeal of Post-closure Tax and Trust Fund

The bill would repeal the tax on hazardous wastes under section 4681 of the Code effective on the date of enactment, and would terminate the Post-closure Liability Trust Fund as of that date. Amounts in the fund which have not been obligated or expended prior to the date of enactment would be refunded, on a ratable basis, to taxpayers who paid taxes on hazardous wastes under section 4681.

C. Non-Tax Provisions affecting the Hazardous Substance Response Trust Fund

Overview

As discussed above, H.R. 5640, as reported by the Committee on Energy and Commerce would extend the funding of the Hazardous Substance Response Trust fund for 5-years at significantly increased levels. This increase in funding is required primarily by an increase in the number of abandoned hazardous waste sites which are to be cleaned up under the superfund program. The non-tax provisions of H.R. 5640 which will affect the resources available to the fund and the demands on the fund are outlined below.

Mandatory cleanup schedule

As part of the expanded superfund program, the bill would direct the EPA to place no fewer than 1,600 sites on the National Priorities List by January 1, 1988. The EPA estimates that the Fund provided under present law is adequate to cleanup at most 170 sites. The bill further requires the EPA to initiate remedial investigations and feasibility studies for such sites on a regular schedule beginning as of the date of enactment. Finally, the bill requires EPA to begin on-site work at no fewer than 150 sites each year.

When EPA cooperates with States in the cleanup of hazardous waste sites, the bill would permit States to apply the administrative costs of running their own Superfund programs toward their matching share requirements for response costs (generally 10 percent of such costs); additionally, the bill would clarify that nothing in CERCLA is to be interpreted to preempt a authority to impose taxes to support its own Superfund programs. The bill would further specify that the 90/10 Federal/State matching share formula is to apply to long-term operation and maintenance costs.

Amendments to response and liability provisions

The bill would clarify that liability for abatement orders and cleanup costs under Sections 106 and 107 of CERCLA is to be strict, joint and several. Under this rule, each defendant generally would be liable for the full amount of any combined damages unless the defendant can establish, by a preponderance of the evidence, that the harm caused by a release or threatened release is divisible, in which case the defendant would be liable for only his portion of such harm. In addition to these changes, the bill would clarify the EPA's authority to recover prejudgment interest in cost recovery actions would specify that EPA response actions may be reviewed only in the context of cost recovery enforcement actions or civil actions under section 106, and would make certain other adjustments and clarifications to the CERCLA response and liability provisions. Amounts recovered under these provisions would be added to the Hazardous Substance Response Trust Fund.

Citizens' suits

The bill would allow any person to bring a citizens suit against the administrator of the EPA, alleging failure to perform any act or duty under CERCLA as amended by the bill which is not discretionary with the Administrator. The court would then have jurisdiction to order the EPA Administrator to perform such act or duty.

The bill would provide that citizens suits (other than suits against the EPA Administrator) may not be brought under certain circumstances where the EPA has commenced and is diligently pursuing equivalent actions, or where response actions or consent decrees (in the case of endangerment actions) are in progress with respect to the alleged violation or endangerment. Additionally, the EPA Administrator, if not named as a party, could intervene in any citizens' suit as a matter of right.

The bill would allow the award of reasonable attorneys' fees to prevailing parties in a citizens suit.

In addition to allowing citizens suits, H.R. 5640 encourages citizen participation by establishing a mandatory program for public participation in remedial decisions by EPA and providing authority for the EPA Administrator to use Superfund money to make grants to enable affected communities to obtain expert advice and technical assistance in commenting on the agency's proposed plans for action.

Relief for injured individuals

The bill would add three basic provisions pertaining to relief of injured individuals which are modeled on a study conducted pursuant to section 301(e) of CERCLA and presented in June, 1982. First, the bill would require the Agency for Toxic Substances and Disease Registry, created under the CERCLA and administered by the Department of Health and Human Services, to prepare toxicological profiles for the 100 chemicals most frequently found, or posing the greatest risks, at Superfund sites. The profiles, which would be based primarily on a compilation of existing literature and limited testing where necessary, would be required to be prepared at the rate of 25 per year for the next four years. Monies for these studies would come from the Superfund.

Second, the bill would provide any individual or group of individuals the right to petition the EPA Administrator for health effects studies and emergency relief in cases of dangerous exposure to hazardous substances which have been released from dump sites or in the course of a disaster-like chemical fire. If the petitioners are able to demonstrate (e.g., through submission of laboratory tests of drinking water) that they are being exposed to a hazardous substance, the Administrator would be required to determine whether such substances may pose a significant risk to their health and whether it is reasonably likely that such substances come from a covered facility. If the Administrator makes such determinations, the bill would require the EPA to conduct a scientific health effects study of the affected individuals, to be completed within a 6-month period. If a health effects study shows that an exposure to hazardous substances actually does pose a significant risk, EPA would be required immediately to reduce such exposure to safe levels. Actions by the Administrator would include (e.g.) providing alternative drinking water or, in the most egregious cases, emergency relocation.

Finally, the bill would create a Federal cause of action for those injured by exposure to hazardous substances. The cause of action would be limited to land -or water-based disposals of hazardous substances not exempted by CERCLA. Under the provision, plaintiffs could sue parties responsible for the release of hazardous substances, in either State or Federal District Court, for damages including (1) medical expenses, (2) any loss of income or profits, or impairment of earning capacity, (3) pain and suffering, and (4) any economic loss and damages to property, including real and significant diminution in value. The Superfund would not compensate injured parties with respect to any of these damages.

Leaking underground storage tanks

The bill includes extensive provisions regarding the regulation of leaking underground storage tanks. Under the bill, EPA would be required to develop a regulatory program which will contain such requirements as may be necessary to protect human health and the environment in the case of leaking tanks. Such regulations could include, but need not be limited to, design standards for new tanks and monitoring and corrective action requirements for new as well as existing tanks. In addition, to abate threats to public health, Superfund money would be available to clean up leaks from underground storage tanks, including those tanks which store petroleum or petroleum products.

V. ISSUES RELATING TO THE TAX PROVISIONS OF H.R. 5640

A. Funding Level of the Superfund Program

Several issues arise in considering the appropriate level of funding for the Superfund program. These include (1) the ultimate cost of cleaning up all the sites which pose an environmental threat and (2) the rate at which these sites should be cleaned up.

With respect to the ultimate cost of cleaning up all threatening sites, the Environmental Protection Agency recently estimated that the Federal cost of remediating all current and future sites on the National Priorities List will total $9.1–14.5 billion in 1983 dollars (under moderate groundwater contamination assumptions).[10] Some have argued that these estimates are too low because of optimistic assumptions concerning the total number of hazardous sites which exist and the proportion of these which will be cleaned up by private parties. The General Accounting Office has reviewed this estimate and concluded that the cost of cleanup could be as high as $26 billion.[11] These costs could, under H.R. 5640, be even higher due to the more stringent remediation standards, the expansion of the fund's response authority with respect to releases of petroleum and petroleum products, and the greater Federal share of site maintenance costs provided by the bill. Thus, there is substantial likelihood that the $9.5 billion of taxes and general revenues provided by H.R. 5640 will eventually be required.

The second issue related to funding levels is the rate at which the sites should be cleaned up. H.R. 5640 provides a specific schedule for the various phases of cleanup, including minimum number of completions, remedial investigations and feasibility studies, and initial remedial work each year. If the schedule is adhered to, the 546 sites currently on the National Priorities List would be cleaned up within five years; part of the purpose of considering this legislation well before the expiration of the current taxes is to allow the early commencement of the planning studies necessary to meet this schedule. Given the requirements imposed by H.R. 5640, as to the rate at which cleanup is to proceed, it is likely that the $9.5 billion in funds provided by the bill will be required through the period ending in fiscal year 1990.

However, there is some controversy over the rate at which the Superfund can efficiently spend its resources. Hazardous waste cleanup projects require lengthy site analysis, planning, preliminary engineering, and design work. This is particularly the case at sites where groundwater contamination is involved. Given the long lead time necessary for implementing site cleanups, some have argued that the EPA will be able to spend productively over the 1986–1990 period less than half the revenue provided by H.R. 5640 in this period.

---

[10] Memorandum to Alvin Alm and Lee Thomas from Alvin R. Morris, Director of Superfund Task Force, Environmental Protection Agency, Office of Solid Waste and Emergency Response (December 8, 1983), p. 12.

[11] General Accounting Office, "EPA's Preliminary Estimates of Future Hazardous Waste Cleanup Costs are Uncertain," RCED-84-152, (May 7, 1984).

On this ground, it has been suggested that the Superfund should be reauthorized for a period longer than 5 years, but at a lower annual funding level. Alternatively, given the uncertainty about the rate at which the Superfund can be spent, it may be desirable to terminate the Superfund taxes if a large balance builds up in the trust fund. The 1980 Act, for example, contains a trigger mechanism which temporarily suspends the feedstock tax if the Superfund balance exceeds $0.9 billion and would not fall below $0.5 billion in the subsequent year. This type of trigger could guard against excessive prepayment into the Superfund. The Energy and Commerce Committee recommends an amendment which provides such a trigger mechanism.

On the other hand, opponents of this type of trigger argue that it would effectively enable the EPA to control the level of Superfund taxes by manipulating the rate at which outlays are made from the Superfund. In addition, taxpayers would be less certain about their potential Superfund tax liability over the 5-year reauthorization period. It is also argued that without the assurance of adequate revenues, preliminary planning and design activities will be hampered, and the ultimate schedule of cleanup could be significantly delayed. Finally, given the lead time necessary to plan cleanup projects, the Superfund tax might be triggered off just as the demand for fund resources sharply rises in the construction phase of the program.

B. General Revenue Share of Superfund Expenditures

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("Superfund Act") established an excise tax on certain chemical feedstocks and petroleum as the primary revenue source for the Federal Superfund. Through fiscal 1983, appropriations from general revenues have amounted to 12.5 percent of excise tax revenues. The Superfund was intended to cover the cost of cleaning sites only where liability could not be traced to a private party.

Payers of the feedstock tax have challenged the equity of this tax. First, the economic beneficiaries of the prior use of cheap waste disposal practices include: past customers of products fabricated in waste producing plants, past stockholders, and past workers. However, the burden of the Superfund feedstock tax falls on *current* customers, shareholders, and workers. Thus, there is no direct connection between past beneficiaries of cheap waste disposal practices, and the individuals who currently bear the burden of the feedstock tax. Second, companies who pay to remediate all sites for which they are responsible (whether voluntarily or under court order) are, in effect, taxed twice under the feedstock tax. Third, the current excise tax is assessed on chemical feedstocks rather than on the actual hazardous wastes which are commonly found in abandoned disposal sites. Companies outside of the chemical industry that generated these hazardous wastes are not directly taxed under current law. Even if the disposal of hazardous wastes were taxed, as provided in H.R. 5640, there would be no direct link between current taxpayers and past waste disposers.

On these grounds, it can be argued that general revenues should finance a larger share of Superfund expenditures. Under H.R. 5640, only 12.5 percent of trust fund receipts are derived from general revenues. Unlike many of the other trust funds supervised by the Treasury (e.g., the airport and airway, highway, and inland waterway trust funds), the payers of Superfund taxes do not directly benefit from the facilities which are built and maintained by the hazardous substance response trust fund. In western Europe, general revenue financing is, in fact, the approach generally followed for funding the remediation of abandoned waste sites.

Advocates of the feedstock tax argue that it is appropriate and equitable to place the financial burden of cleaning up hazardous waste sites on the industries responsible for creating the problem.[12] This approach has been followed in other instances where Congress has made the judgment that responsibility for a present problem or condition more properly attaches to a particular segment of the economy rather than the entire body of taxpayers who provide general revenue. For example, under the Black Lung Benefits program, benefits to diseased coal miners and survivors are financed by an excise tax on current coal production. Also, under the Surface Mining and Reclamation Act, reclamation of former surface mining sites is financed by a fee on coal production. Finally, it is argued that in view of the size of the Federal budget deficit it would be irresponsible to finance hazardous waste cleanup from general revenues.

C. Feedstock Tax

CERCLA imposed an excise tax on 42 chemical feedstocks and on petroleum. The main criterion for determining which feedstocks would be subject to tax was the prevalence of hazardous wastes derived from these feedstocks. The basic feedstock tax rates were set at $4.87/ton for petrochemicals, $4.45/ton for inorganic chemicals, and $0.79/barrel for petroleum.[13] These rates were necessary to achieve a $1.6 billion Superfund program over five years and to allocate 65 percent of the tax burden to petrochemicals, 20 percent to inorganic chemicals, and 15 percent to petroleum. This allocation was based on the respective proportions of derived wastes found in hazardous waste sites. In addition, the feedstock rates were limited to 2 percent of wholesale price (based on data available in 1980).

Exemptions were granted for methane or butane used as a fuel; ammonia, sulfuric acid, and nitric acid used in the production of fertilizer; sulfuric acid produced as a byproduct of air pollution control; and chemicals derived from coal. In addition, section 1019 of the Deficit Reduction Act of 1984 clarified that exemptions would also apply to specified feedstocks used in the production of certain fuels; and transitory chemicals which occur in metal refining processes.

---

[12] According to one study the chemical and allied products industries are responsible for producing 84 percent of the contaminants found at national priority list sites. See: Management Analysis Center, Inc. "Financing Superfund: An Analysis of CERCLA Taxes and Alternative Revenue Approaches," (June 1984), p. 38.

[13] Compounds (e.g., arsenic trioxide) were taxed at a fraction of the rate imposed on their constituents (i.e., arsenic) based on percentage composition.

H.R. 5640 taxes 20 additional chemical feedstocks including lead and zinc. Three compounds derived from lead and zinc (i.e., lead oxide, zinc chloride, and zinc sulfate) are exempted from tax; however, these compounds would be taxed indirectly to the extent that their constituent lead and zinc is taxed under the bill. In addition, the bill removes the exemptions for benzene, toluene, and xylene (BTX) mixed in gasoline and for certain chemicals derived from coal. These 20 feedstocks were added to the list of taxed chemicals under current law on the basis of recent EPA data on the hazardous wastes prevalent in disposal sites.

In setting the feedstock tax rates in H.R. 5640, no attempt was made to achieve a predetermined allocation of the tax burden between the petrochemical, inorganic, and petroleum segments, as was done in the 1980 Act. The revised feedstock tax rates provided in H.R. 5640 were determined as the lower of:

(1) 3-percent of wholesale price (based on 1983 data), and

(2) a $14.94/ton cap for petrochemicals and a $29.87/ton cap for inorganic chemicals.[14]

In the case of aluminum, the feedstock tax was adjusted downward, to reflect more accurately the contribution of that substance to contaminants found at the Superfund sites.[15] The $14.94 and $29.87 caps determine the tax rate of 1 of the 20 petrochemicals, and 22 of the 39 inorganic chemical feedstocks. As shown in Table 7, relative to current law, H.R. 5640 raises feedstock tax rates from 17 percent (nitric and hydrochloric acid) to 784 percent (potassium dichromate). In one case (methane) the tax rate was reduced (by 28 percent). Although not shown in Table 7, the tax rate on crude oil would be increased by 470 percent.

The feedstock tax has been criticized as being arbitrary and, at the $1.27 billion per year level proposed in H.R. 5640, potentially damaging to industry. Under the bill, and current law, feedstock taxes are not based on either the degree of hazard associated with wastes derived from these feedstocks or the volume of hazardous waste produced from these chemicals. Thus it is argued that a tax on the disposal of certain hazardous wastes, such as the waste end tax in H.R. 5640, more equitably places the burden of the tax on the wastes which are being cleaned up by the Superfund.

On the other hand, proponents of the feedstock tax argue that it is successful in accomplishing the stated goal of financing the Superfund program through taxes paid by the industries that account for most of the problem which led Congress to establish the program. According to a report prepared by ICF, Inc. for EPA, 77 percent of all regulated hazardous wastes are produced by the chemical, petroleum refining, and primary metals industries which are the primary payors of the feedstock tax. Almost all hazardous wastes or substances are made from the feedstocks subject to tax;

---

[14] These caps are based on the $10/ton and $20/ton limits on petrochemicals and inorganic chemicals, respectively, used in an early stage of the legislative process leading to the CERCLA. These figures are increased by 49 percent for cumulative inflation in subsequent years.

[15] The Energy and Commerce Committee recommends an adjustment to the tax on phosphorous to correct a mathematical error.

the vast majority of those substances ranked highly hazardous at waste sites are taxed feedstocks or their derivatives.

Other than the overall level of revenues to be provided by the feedstock taxes, the principal issues appear to be the formula used for setting the rates, the list of taxable substances, and exemptions for particular uses or processes contained in present law or proposed in H.R. 5640.

D. Effect of Feedstock Tax on Trade

One of the ways in which the feedstock tax is said to harm the domestic chemical industry is its potentially adverse impact on the balance of trade. It is argued that the feedstock tax subsidizes imports derived from taxed chemicals, penalizes exports of taxed feedstocks and derivatives therefrom, and encourages U.S. chemical companies to manufacture offshore. Under H.R. 5640 (and present law), taxes are imposed on domestically produced and imported chemical feedstocks but not on products derived from those feedstocks. Thus, imported products that are derived from feedstocks that would have been taxable if produced or sold in the U.S. escape tax and are, in effect, subsidized by the Superfund tax. For example, batteries consist mostly of lead and lead oxide. Lead is a taxable feedstock under H.R. 5640; however, imported batteries are not taxed. The Battery Council International estimates that under the bill, the feedstock tax on lead raises the cost of manufacturing an automobile battery by 15 cents. Thus, disregarding transportation costs, imported automobile batteries have a 15 cent cost advantage over those produced in the United States. Similarly, exports of U.S. produced batteries suffer from a 15 cent cost disadvantage relative to foreign-produced batteries.

While the feedstock tax could, in theory, harm U.S. trade it is unlikely that the actual damage to the U.S. chemical industry is large. The maximum penalty imposed by the H.R. 5640 feedstock tax on any chemical product is 3 percent of the manufacturing cost.[16] In the battery example, the feedstock tax amounts to less than one-half of one percent of the product's retail price. While some segments of the chemical industry are highly competitive, the recent growth in petrochemical imports appears to be attributable largely to the appreciation of the dollar against foreign currencies, and competition from plants established near low cost sources of natural gas in the Middle East and elsewhere.

The Energy and Commerce Committee has recommended an amendment which would impose a 5-percent tax on the landed value of chemical imports "directly and substantially manufactured or produced from" taxable feedstocks. Such an import tax would tend to protect the domestic market, for products produced from taxed feedstocks, from competition with untaxed imports. However, there are a number of disadvantages. First the taxation of imported products which are not directly taxed in the United States may violate the General Agreement on Tariffs and Trade (GATT), since the 5-percent rate exceeds the effective tax rate on domestically produced chemical products. Second, the administration of such a tax would be extremely complex since there are literally thousands of chemical compounds which are derived from taxable feedstocks. There is considerable uncertainty as to the number and identity of the imported products which, under regulations, ultimately would be subject to this tax. The administrative burden on the Internal Revenue Service would be further complicated by a provision which would allow importers to pay the feedstock tax that theoretically would be incurred in the United States, in lieu of the 5-percent landed value tax. (This provision was added to enhance the amendment's conformity with the GATT Code.)

---

[16] This follows from the fact that no chemical feedstock is taxed at more than 3 percent of its wholesale price.

Finally, since foreign manufacturers of chemical imports did not generate the wastes found in U.S. disposal sites, it is difficult to argue that they should pay to clean them up. (However, some chemical imports are used in manufacturing processes which generate hazardous wastes.) Without a doubt many environmental regulations (e.g., the Clean Water Act, the Clean Air Act, the Toxic Substance Control Act, the Solid Waste Disposal Act, the Occupational Safety and Health Act, etc.) raise the cost of manufacturing in the United States. However, Congress has not provided systematic trade relief to offset the effects of any such regulations or taxes which affect the costs of domestically produced goods.

E. Disposal Tax

H.R. 5640 would supplement the existing feedstock tax with a new tax on the disposal of hazardous substances. The tax would be collected from the owners or operators of disposal facilities (hence it is referred to as a "waste end" tax). The rate of tax would vary according to the waste's degree of hazard and the environmental soundness of the disposal method. For disposal methods other than underground injection (including storage of longer than one year), the tax rate is $30 per metric ton for more toxic hazardous substances (reportable quantity requirement of one pound or less under sec. 102 of CERCLA) and $10 per metric ton for less toxic hazardous substances. For underground injection the tax is $5 per metric ton. (Under an amendment recommended by the Energy and Commerce Committee). The disposal tax would be imposed on the basis of wet rather than dry weight. Mixtures of hazardous substances would be taxed at the highest rate applicable to the individual constituents. Certain types of waste treatment, most notably incineration, would be exempted from the disposal tax; however, the hazardous residuals from incineration, and other types of treatment, would be subject to the disposal tax.

Several basic issues are involved in the discussion of a disposal tax in the context of financing Superfund program: incentive effects, predictability of revenues, administrative concerns, trade effects, and appropriate financing sources for the particular expenditures authorized under the program.

Incentive effects

A rationale for the disposal tax, like other pollution taxes, is that the market price of disposal does not reflect the full cost to society. Even waste that is properly disposed of, in a facility regulated under the provisions of the Resource Conservation and Recovery Act (RCRA), may still pose some long term risk to the public health and welfare. Accidental releases can occur in the transport of hazardous wastes and at disposal facilities. Property values around disposal facilities may be reduced. And if the owner of a hazardous waste facility becomes insolvent, the cost of maintaining the facility is shifted to the government. Thus, in theory, disposal tax rates should vary with the degree of hazard associated with each type of waste and the environmental soundness of the disposal method employed. Treatment and recycling of hazardous wastes should be exempt from tax, and only the untreated hazardous residuals from these processes should be subject to tax upon ultimate disposal.

A disposal tax, unlike a feedstock tax, has the effect of creating a direct economic incentives for waste reduction and safe management. First, at the production level, there is an incentive to adopt manufacturing processes which generate smaller amounts of the more toxic, highly taxed wastes. Second, at the treatment stage, there is an incentive to recycle and otherwise reduce the volume of hazardous wastes which must be disposed of. Finally, at the disposal stage, there is an incentive to use safer methods of waste disposal which are taxed at a lower rate. Thus, the tax, administered by the Internal Revenue Service, would supplement the environmental statutes administered by EPA in attempting to achieve environmental goals.

The disposal tax in H.R. 5640 generally conforms to the economic model of a pollution tax. The most toxic wastes (i.e., with reportable quantities of one pound or less under CERCLA) would be taxed at a higher rate than less toxic wastes. Also, wastes disposed of using environmentally safer methods of waste management, such as incineration, are taxed at a lower rate than waste disposed of by relatively less safe methods, such as landfill. However, the bill departs from this model to the extent that legitimate treatment and recycling technologies are not exempted from the disposal tax. The bill specifically exempts incineration, but the taxation of other forms of treatment appears to be left to regulations.[17] Also, some have argued that despite the lower tax rate provided in the bill, underground injection is too heavily taxed relative to other disposal methods on the grounds that the wastes disposed of are very dilute (H.R. 5640 taxes disposal on a wet rather than dry weight basis), and the disposal method is claimed to be environmentally safe. Further, it is argued that the system of permits and legal liability for damages under CERCLA, RCRA, and State tort law already provide substantial incentives for proper disposal.

However, it is unclear if adequate information exists about the degree of hazard of different wastes and the environmental soundness of alternative disposal methods to design a rational disposal tax. According to the Office of Technology Assessment (which supports the concept of a disposal tax) there is insufficient scientific data to determine whether or not deep well injection is a highly safe method of long term disposal. The inability to adequately define hazardous wastes and determine their relative harmfulness, is the primary reason why countries such as France and Germany, which tax the discharge of pollutants into waterways, have not enacted taxes on hazardous waste disposal.

---

[17] The Energy and Commerce Committee Report contains a recommended amendment which exempts biological and carbon adsorption waste water treatment from the disposal tax.

Predictability of revenues

Twenty-three States currently employ or have employed some form of waste-based tax.[18] The General Accounting Office (GAO) recently studied the experience with waste end taxes in New York, California, and New Hampshire, and concluded that[19]

> The three states (1) have not collected the revenues they anticipated, (2) have not determined if the tax achieved its objective of encouraging more desirable waste management practices, and (3) were concerned that a similar federal tax may reduce state tax revenues or increase the incentive to illegally dispose of hazardous waste. In addition, GAO found that in order to implement similar federal waste-end taxes, more data are needed on the types and quantities of waste generated and the treatment, storage, and disposal methods used. These data are necessary to accurately estimate revenue, measure change in disposal practices, and assure compliance with the tax.

The revenue shortfalls in these States were 39 percent in California (disposal tax), 73 percent in New York, and 93 percent in New Hampshire. Florida replaced its waste end tax with a feedstock tax in 1983 after discovering that administrative costs exceeded revenues.[20] The State experience with disposal taxes raises the issue that a revenue shortfall might occur at the Federal level if the disposal tax in H.R. 5640 were enacted.

Part of the revenue shortfalls experienced at the State level are due to out-of-state disposal of wastes. This type of tax avoidance would not affect a Federal level disposal tax (except to the extent hazardous wastes are exported from the country). A second explanation is that most of the State disposal taxes have been enacted since 1980 and are relatively new. This "learning curve" syndrome may be responsible for the greater than 70 percent revenue shortfall in the Federal disposal tax enacted in the CERCLA of 1980 to fund the Post-closure Liability Trust Fund.[21] A third cause of persistent revenue shortfalls is that the disposal tax creates incentives for waste management, both by legal and illegal means. California, in one year, experienced a 28 percent decline in reported waste including a 66 percent decline in extremely hazardous wastes, after enacting a waste end tax.[22]

The limited size of the disposal tax base means that disposal tax rates must be much higher than feedstock tax rates to raise a similar amount of revenue. For example, it is estimated that H.R. 5640 would raise the price of landfilling hazardous waste on the order of 10-30 percent—far greater than the maximum 3 percent tax on feedstocks. In combination with State level waste end taxes, H.R. 5640 could raise the effective tax rate on disposal to the point where serious revenue shortfalls might occur at both levels of government.

---

[18] Fred C. Hart Associates, Inc. "CERCLA Funding Options," pp. 21-22.

[19] GAO, "State Experiences With Taxes on Generators or Disposers of Hazardous Waste," (May 4, 1984), p. ii.

[20] ICF, INC., "Briefing on CERCLA Tax Alternatives prepared for the Environmental Protection Agency, part II, p. 14.

[21] According to the most recent IRS data, the post-closure tax raised only $2.4 million in the first quarter of fiscal 1984 relative to fiscal year budget estimates of $8 million per quarter and estimtes of $25 million per quarter when the tax was enacted in 1980.

[22] ICF, Inc. "Briefing on CERCLA Tax Alternatives," part II, p. 20.

At the State level, it appears that some of the hazardous waste reduction is due to "midnight" dumping, waste blending, questionable recycling and treatment operations, and under-reporting of waste volumes.[23] Under-reporting is particularly difficult to detect in the case of on-site disposal, since the waste producer and disposer are the same party. This could be a significant problem for a Federal disposal tax because the EPA estimates that 96 percent of all hazardous waste are disposed of on site. As a result, some argue that the proposed disposal tax in H.R. 5640 could seriously undermine compliance with the RCRA reporting requirements.

Ultimately, there may be a conflict between the two major goals of a disposal tax—the provision of revenue for the Superfund program and the encouragement of proper treatment of hazardous wastes. To the extent that the tax applies only to those disposal practices which cause environmental harm and is successful in discouraging such practices, the revenues generated by the tax decrease.

Administrative concerns

Some have questioned whether the current RCRA regulatory system is adequate for assessing, collecting, monitoring, and enforcing a disposal tax. This regulatory system is the basis for the tax proposed in H.R. 5640. Notwithstanding the RCRA regulatory system, every State that has adopted a waste end tax has found it necessary to develop a separate reporting system.[24] The GAO concluded that current data were inadequate for determining the cause of the revenue shortfalls in the State programs, and the extent to which illegal disposal practices may have increased as a result of taxing hazardous waste disposal.

Another lesson from the State experience is the relatively high administrative cost of a disposal tax. The current Superfund tax is imposed on 43 feedstocks and collected from approximately 500 taxpayers. On the other hand, the disposal tax proposed in H.R. 5640 would be imposed on more than 430 hazardous substances regulated under RCRA and CERCLA, and collected from approximately 10,000 on-site and off-site hazardous waste disposal facilities.[25] The Internal Revenue Service would be required to develop complex regulations covering the hundreds of substances involved, and specifying the taxation of numerous recycling, treatment, and disposal practices.

Further, it is not clear to what extent the RCRA regulatory system is adequate to provide the framework for the administration of a tax. For example, liability for an excise tax generally depends on the occurrence of a taxable event, but the RCRA system is geared to the prevention of certain events (i.e., illegal disposals) which are prohibited under that law. It is unclear at what point legal treatment and/or legal disposal would require the payment of a tax. Further, since RCRA allows approved State programs to administer the Federal requirements, it is unclear to what extent a Federal tax based on RCRA would ultimately be administered by the States, which could vary in their definition of terms and administrative practices. Also, there is considerable controversy over the RCRA regulations which define hazardous wastes and various management practices[26]

---

[23] *Ibid.*, pp. 18-19.
[24] *Ibid.*, p. 26.
[25] *Ibid.*, 12.

> Industry and environmentalists alike, unhappy with much of what they already see, have challenged numerous regulations and are involved with EPA in lengthy negotiations over the way those regulations should ultimately read. The states, which administer RCRA, are finding their efforts hobbled because promised federal aid has not materialized.

The House has twice adopted amendments to the RCRA which would, *inter alia,* control certain questionable treatment practices under current law.

Since the disposal tax in H.R. 5640 is tied to the RCRA statute, the delays and frequent changes and challenges to in EPA's regulations could make it difficult for the IRS to administer the tax and issue its own regulations.

Unlike the waste end tax in current law, which finances the Post-closure liability Trust Fund, the disposal tax in H.R. 5640 would be imposed on a wet weight basis. Since wastes injected into underground wells are very dilute (90-99 percent water) taxing disposal on a wet weight basis increases the share of the tax burden paid by underground injection relative to land disposal (if the same tax rate applies to both). H.R. 5640 adjusts for the higher water content of wastes injected into underground wells by lowering the tax rate to $5 per metric ton (vs. $30 or $15 per metric ton for land disposal depending on the waste's degree of hazard). Some have argued that, even at $5 per metric ton, the disposal tax for underground injection is too high relative to landfill.

Whether or not the tax on underground injection is too high, many oppose taxing disposal on a dry weight basis because of the added adminstrative burden. The cost of determining dry weight content has been estimated to be on the order of $20 per barrel, and is often more than the tax liability. As a result, some small waste generators currently do not bother to determine the dry weight content of their wastes and pay the post-closure tax on a wet weight basis. This may put small disposers at a disadvantage relative to large disposers (who have more uniform waste streams and in-house laboratory facilities).

Trade effect

Like the feedstock tax, the disposal tax raises the price of manufacturing certain production in the United States. This effectively taxes exports and subsidizes imports of such products. However, the impact of the disposal tax on individual businesses may be larger than the feedstock tax. The feedstock tax in H.R. 5640 never raises production costs by more than 3 percent, while the disposal tax could amount to a much larger percent of manufacturing costs for products whose fabrication involves large volumes of highly hazardous wastes. These waste-intensive products could be priced out of the market by imports from countries which have few, if any, regulations governing the disposal of hazardous waste. In these cases, U.S. manufacturers might shut down production and possibly establish manufacturing operations in other countries with weaker environmental standards. While many would welcome the export of industries which produce large volumes of hazardous wastes, the cost to the U.S. economy in terms of jobs and income must be considered.

---

[26] *Chemical Week*, "Getting RCRA Under Control" (June 9, 1982), p. 36.

Appropriateness of revenue source

One of the arguments for a waste end tax is that under a feedstock tax, the burden of financing the superfund program is not properly placed on many of the industries which produced the hazardous wastes which currently pose an environmental threat. It is argued that since the disposal tax in H.R. 5640 is geared to the degree of hazard and the volume of such wastes, it is more highly correlated with the generation of wastes found at superfund sites.

Opponents of a waste end tax argue, however, that this argument is not valid to the extent that a large volume of wastes is not subject to the tax. Thus, under the proposal in H.R. 5460, wastes which are exported, generated by small generators exempt from RCRA, or are municipal wastes might not be subject to the tax. To the extent the tax is tied to the existing RCRA regulatory system, disposal which falls outside that system would not be subject to the tax.

F. Post-closure Liability Trust Fund

Under current law, the post-closure fund transfers legal liability of owners and operators of private disposal sites to the Federal government, provided that such sites are operated and closed according to RCRA requirements, and the EPA determines, 5 years after closure, that there is no substantial likelihood of future release. In exchange for assuming such liability, a tax of $2.13 per dry-weight metric ton was imposed on the disposal of hazardous wastes at qualified facilities. In effect, the post-closure tax is in lieu of an insurance premium for the coverage of all future claims arising from health and property damage caused by a hazardous waste facility.

H.R. 5640 repeals the post-closure liability trust fund enacted in 1980 and refunds the taxes collected to finance the fund. There are several arguments for repeal. First, no estimate has been made of the liability which ultimately could be transferred to the Federal government under this provision. This liability is unlimited, and is governed largely by State and local laws which could change and could cover such items as medical expenses, pain and suffering, and income losses. Thus, the amount of claims against the fund could be extremely large, and there is concern that the post-closure fund will have inadequate resources to compensate the victims of even a few releases. This could necessitate a large tax increase or use of general revenues to pay these claims. Second, it is argued that the transfer of liability to the government diminishes the incentive to make these facilities safe over the long run. Under the scrutiny of private insurers (to avoid liability attributable to CERCLA and State tort law), it is claimed that facility operators would continually strive to increase safety in order to keep premiums low. Further, because storage facilities do not pay the tax, a storage facility which switched its status to that of a disposal facility just before closure could transfer liability to the Fund without ever having paid the tax. Other such mismatches between the tax and eligibility for transfer or liability may be possible. In addition, the post-closure fund does not relieve waste generators and transporters from legal liability for damages caused by wastes deposited at a hazardous waste disposal facility.

On the other hand, it is argued that adequate private insurance is not available to cover the long term liability of operators and owners of waste disposal facilities. Non-sudden environmental impairment insurance policies may be cancelled involuntarily by the insurer, and are written on a claims-made vs. an occurence basis. Such a policy would not cover any claim filed after an involuntary termination even if the damage resulted from a release which occurred when the policy was in force. Thus, repeal of the post-closure fund could leave the public without protection where a policy is involuntarily cancelled or a facility operator becomes insolvent. Only the Federal government, it is argued, is capable of fully insuring these risks.[27]

The Environmental Protection Agency is currently studying the question of whether the post-closure fund is, in conjunction with financial responsibility requirements imposed by various environmental statutes, adequate to cover the long term risks posed by hazardous waste facilities.

As an alternative to repeal, one possibility is to the limit the liability of the post-closure fund to sites where the owner and operator are insolvent or the liability of a private party cannot be established. This would have the effect of making the post-closure fund similar to the Superfund (which covers the cost of cleanup where responsible parties cannot be identified). Under this alternative, the post-closure fund would supplement the Superfund by covering liability for damages for medical costs, income losses, pain and suffering, and other items which would not be compensated by the Superfund.

---

[27] See Department of the Treasury, *The Adequacy of Private Insurance Protection under Section 107 of the Comprehensive environmental Response, Compensation, and Liability Act of 1980, June, 1983.*

VI. REVENUE EFFECT

Table 8 shows the estimated revenue effect of the feedstock tax provisions in H.R.5640. These estimates assume the adoption of the recommended Energy and Consumer Committee amendments to H.R. 5640, and indicate that receipts of the Hazardous Substance Response Trust Fund from this source would be $6.800 billion through fiscal year 1991.[28] The distribution of the total feedstock tax burden over this period by type of taxable substance indicates that 17.8 percent of the receipts would be collected from the tax on crude oil, 68.2 percent from the taxes on organic chemicals and 14.0 percent from the taxes on inorganic chemicals.

Table 8.—Estimated Feedstock Tax Revenues, Fiscal Years

1986-91

[In millions of dollars]

Feedstock	1986	1987	1988	1989	1990	1991	1986-91
Crude oil	230	243	242	242	240	18	1,215
Organic chemicals	769	891	930	967	1,003	75	4,635
Inorganic chemicals	158	182	191	198	206	15	950
Total, hazardous substance response trust fund receipts	1,157	1,316	1,363	1,407	1,449	108	6,800

Table 9 provides the estimates for revenues expected to be realized from the waste-end tax, again assuming the adoption of proposed amendments. These estimates are quite sensitive to the particular set of assumptions employed. First, assumptions are required as to the specific events and substances subject to the tax under the bill, since there is some uncertainty concerning the taxability of certain forms of treatment and the coverage of certain wastes. Second, the experiences to date with the tax which supports the Post-Closure Liability Trust Fund and of States which have enacted various forms of waste-end taxes suggest that estimates of the quantities of hazardous waste disposed are often quite high in relation to what is ultimately found to be taxable. Additionally, waste-end taxes may promote many types of activity (such as changes in the methods used in handling hazardous wastes or under-reporting of quantities of hazardous waste disposed) whose effects are difficult to quantify given the paucity of reliable data in this area. In recognition of these factors, it is estimated that $0.920

---

[28] The amendment which would impose a tax on imports derived from taxed feedstocks, and refund the feedstock tax on chemical exports, was not included in the revenue estimate due to inadequate data and ambiguities in the amendment language. This amendment could increase or decrease revenues.

billion would accrue to the Hazardous Substance Response Trust Fund through fiscal year 1991 from the waste-end tax.

Table 9.—Estimated Waste-end Tax Revenue, Fiscal Years 1986–91

[In millions of dollars]

Item	1986	1987	1988	1989	1990	1991	1986–91
Hazardous substance response trust fund receipts		170	244	244	244	18	920

The combined effect of the proposed feedstock taxes and waste-end taxes is to produce $7.720 billion in revenue for the Hazardous Substance Response Trust Fund during the fiscal year 1986-91 period (see table 10). There will be a corresponding reduction in estimated corporate income tax receipts of $1.925 billion during that period, producing a net budget receipt change of $5.777 for the same period. Table 10 provides a summary of the revenue impact of all the tax provisions in H.R. 5640.

Table 10.—Estimated Revenue Effects of All Tax Provisions in H.R. 5640, Fiscal Years 1985–91

[In millions of dollars]

Item	1985	1986	1987	1988	1989	1990	1991	1986–91
Feedstocks tax receipts		1,157	1,316	1,363	1,407	1,449	108	6,800
Waste-end tax receipts			170	244	244	244	18	920
Total, hazardous substance response trust fund tax receipts		1,157	1,486	1,607	1,651	1,693	126	7,720
Post-closure trust fund tax receipts	–18							–18
Change in income tax receipts	4	–289	–371	–402	–413	–423	–31	–1,925
Net change in budget receipts	–14	868	1,115	1,205	1,238	1,270	95	5,777

Mr. **Gibbons**. Our first witness is Congressman James Florio, the original author of H.R. 5640 and chairman of the Subcommittee on Commerce, Transportation, and Tourism of the Committee on Energy and Commerce.

We welcome you, Chairman Florio, to the Ways and Means Committee and you may proceed as you wish.

Mr. **Conable**. Mr. Chairman.

Mr. **Gibbons**. Do you have a statement, Mr. Conable?

Mr. **Conable**. I have nothing to add except I hope the committee will deliberate on this matter and not feel that we must rush to judgment without first looking at the substantive elements of the bill. I believe it to be very important. It is obvious that more money is needed. The manner in which we raise the money is important and the extent to which we permit expansion of the purposes to which the trust fund is used is also important. In the past this committee has shown some reluctance to raise money for a trust fund which is viewed by other committees as a plum ripe for the plucking and for possible expansion of the original purposes of the fund.

So I think it is important that we study the substantive aspects of it. The only quarrel I would have with your statement is that while it may be appropriate to move with some dispatch on an obviously needed measure, I hope we won't move with such dispatch that the committee considers itself a rubber stamp for the work of other committees.

Mr. **Gibbons**. Study we will, deliberate we will, but doddle we will not.

Mr. **Conable**. Very good.

STATEMENT OF HON. JAMES J. FLORIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY, AND CHAIRMAN, SUBCOMMITTEE ON COMMERCE, TRANSPORTATION, AND TOURISM, COMMITTEE ON ENERGY AND COMMERCE

Mr. **Florio**. Thank you very much, Mr. Chairman, and members of the committee.

I appreciate the opportunity to come before you to talk about this very important bill. I will summarize my statement and ask that it be included in the record.

Mr. **Gibbons**. Your full statement as well as the rest of the witnesses will also have their statements in the record.

Mr. **Florio**. At the outset I want to acknowledge the role that this committee has played in the initial formulation of this program and will play in the reauthorization of it.

As you may recall, in 1980 this committee reviewed the proposal that came out of the Energy and Commerce Committee, the funding proposal, and in fact showed great wisdom in expanding that proposal beyond what had been recommended. If anything, the subsequent history of the program vindicates this committee's insightful judgment concerning the scope of the environmental problem that the Nation faced.

It is clear that the $1.6 billion fund, the 5-year fund, has been woefully inadequate for the cleanup effort that is required.

As many of you are aware, it was your suggestions, this committee's suggestions, that provided for the revenue mix and the appropriate amount of money that was included in the bill.

I think few imagine the actual scope of the funding that would be needed. Certainly it's a matter of record now that EPA's gross mismanagement of this program in the early years partnered with improved data concerning the number and nature of the sites that have to be cleaned up leads any objective observer to appreciate the fact that a greater amount of money is needed in the next 5 years than was needed in the first 5 years. I would ask you to consider just a few facts.

One is that EPA has managed to clean up only six sites in the last 4 years of this 5-year program although it has placed 546 sites on the national priorities list which is the list of high priority dangerous sites. There is an expectation that there are 17,000 to 22,000 toxic waste sites in this Nation. EPA expects to place at least 2,200 sites on the national priorities list before the total program is completed.

EPA projects that the current $1.6 billion fund will clean up, at most, 170 of those 546 high priority sites. EPA has estimated that in the next 5 years it will take $8 billion to $16 billion at a minimum to address the national priorities list and at that rate EPA has projected that cleanup of those priority sites will take 14 years.

So I don't think anyone on this committee is prepared to say we will wait 14 years to clean up the priority sites which by definition are imminent and substantial hazards to people's health and the environment.

The Agency's estimates are considered extremely conservative by the GAO and by the Office of Technology Assessment. GAO tells us that ultimate cleanup costs could run as high as $26 billion. OTA says $40 billion. State organizations including the National Governor's Association urge us to commit $9 billion to $12 billion over the next 5 years. The environmental community—you will hear from them—say we should commit $20 billion.

Even the Chemical Manufacturers Association which endorsed and continues to endorse immediate reauthorization of this bill has expressed its support for funding levels of about $3.4 billion, although they concede that at that funding rate cleanup of the high priority list sites will take close to 2 decades.

As I say, I don't think there is anyone that can go back to their constituents and say we are going to sign on to a funding level that will take 20 years to clean up the national priorities list. I am making the point that the funding allocations in our bill, that is the $9 billion for 5 years, is modest by all the comparisons and estimates that have been put forward.

I would like you to evaluate the bill on a number of different levels. For example, we are talking about expanding the scope of the legislation beyond just the basic cleanup requirements because we have had hearings and we come to the conclusion that there are other things that are required to be included in this legislative program.

For example, we provide for the authority to use moneys out of the Superfund to pay for emergency relief and health effects studies in cases where waste site contamination has in fact damaged the health of citizens in the surrounding communities. We also provide for desparately needed assistance to the States to play their role in this Federal-State partnership arrangement that was originally contemplated under Superfund.

One of the most significant State assistance proposals that we provide is to change the existing law that provides for a 90–10 match, that is 90 percent Federal, 10 percent State match for remedial cleanup actions. The law now is that if the cleanup mode is determined to be containment rather than removal, that entails long-term operating and maintenance costs that are attributable to the State. That is not desirable because many of the States say they will have to clean up thousands of additional waste sites that don't make Superfund lists. The combination of the costs of cleaning up those sites as well as the costs associated with long-term operation and maintenance is a burden that may well preclude the States from having a meaningful role in this whole concept.

The bill you consider today also contains several provisions designed to ensure that the moneys allocated will be used in the most cost-effective way and to ensure that we will not repeat any of the waste that has taken place, particularly in the first few years of this program under the previous EPA administration.

First and foremost of these new types of remedial measures is that we will place EPA cleanup activity on a tough mandatory schedule to ensure the appropriate escalation of the program's efforts.

Second, the bill establishes clear and uniform national standards for cleanup. So the Agency will no longer spin its wheels in endless internal debates as to appropriate cleanup goals.

Last, in terms of the remedial measures provided in the bill, the bill strengthens the Agency's existing enforcement authority so that where possible cleanup funds can be recovered from the companies actually responsible for dumping wastes at specific sites so as to replenish the fund.

Let me talk briefly about the tax mechanisms which of course is your primary concern. The tax mechanisms will generate the revenues needed to support Superfund II.

The bill continues to rely primarily on the feedstock tax system contained in the current law which was advocated by this committee some 4 years ago. This funding mechanism imposes taxes on the basic chemical and metal building blocks or feedstocks used in the manufacturing process that generate virtually all the wastes found at Superfund sites and has proven to be an extremely reliable and stable source of revenues.

The current tax covers some 43 feedstock substances. The bill before us today broadens this tax base considerably by adding 20 new items to the list of substances on which the feedstock tax will be assessed. The feedstock tax contained in the bill should raise some $1.4 billion a year including a 12.5 percent Federal appropriation which roughly matches the existing ratio, 88 percent private sector assessments, 12 percent roughly general revenues assessment.

In addition to the expanded feedstock tax proposal the bill also includes a second new major funding mechanism which imposes tax on land-based disposal and long-term storage of hazardous wastes. This so-called waste end tax has two primary goals, raising additional revenues for Superfund cleanup, and offering businesses an economic incentive to decrease the proliferating amounts of waste which are generated each year in this country.

The waste end tax established in the bill is projected to generate some $600 million a year starting in January 1987. In my prepared statement, I go into the long list of the arguments for and against this type of tax mechanism and I won't repeat what I include in here.

Suffice it to say, Mr. Chairman, that I think that it is desirable to include in the tax provision this type of a new tax mechanism. It is clearly a supplement to the major stable feedstock system and therefore should be regarded as such. The argument has been raised and will be raised I am sure again, that the projections in the States that have used this waste end tax system have always been overly optimistic, that when it comes down to collecting it you can't count on the projections. That is a factor that this committee certainly should take into account but I think as a matter of principle there should be some waste end tax provision included in any bill that this House passes.

Suffice it to say that the overriding concern I think of all of us is that adequate amounts of revenue be raised to get about the effort of cleaning up the toxic waste problem in this country and that I am convinced that our funding levels contained in this bill are modest at best, but certainly are a bottom line low-end evaluation of what is needed in the next 5 years.

Let me conclude by touching on a couple of questions that I know will be raised by other witnesses before you.

Some will raise the question about the impact of the tax system on the economic health of the chemical industry. You will be told that the funding levels and the tax rates contained in the bill will provide for economic disaster to this very important industry. I would suggest to you that if you hear any of that type of rhetoric it will be clearly overstating the case.

The chemical industry is a very important industry. We certainly want to insure it is doing well, but it is doing well. We have studies, 1983 studies, that evaluated the effect of our national tax policies upon the chemical industry. My recollection is that the chemical industry as a whole has a negative 17-percent effective corporate income tax rate. They are not overly taxed at the Federal level.

I would also suggest to you that you may want to look into the profit margins. The first quarter of this year the profit margins of the chemical industry show it is doing extremely well.

You may want to look—there will be other testimony I understand talking about corporate salaries and things of that sort—I don't want to go into those details but suffice it to say that the industry is doing very well. They have acknowledged their responsibility to contribute to the cleanup of the problem that inappropriate disposal practices that were cheap but inappropriate in the past, contributed to it.

I think the chemical industry has been very responsible in saying they want to play a role. There is a difference as to the degree of their role but that is this committee's responsibility to determine.

Let me just raise one other point. You may hear testimony from EPA that says that they are certainly committed to cleaning up these sites. They may well say they want more time. I know that OMB has an agenda that says that they don't want to deal with these proposals until next year after the election. I would say that this bill has bipartisan support, the bill that is before you. Members of my committee, Mr. Lent, the ranking member, have been in the forefront of saying that we have to deal with this problem. We have to deal with it now, today. We cannot wait until next year. We cannot go through next year and then on the first of October 1985 expect EPA to do a 180 degree turn and gear up to deal with the program that will go from $1.6 billion-plus in the space of a few days—we have to deal with it this year, we have to provide in next year's budget EPA with the resources and the capability to utilize this amount of money, whatever the rate is.

Even CMA says it should be $3 billion or $4 billion and then the range goes all the way up to $40 billion. Whatever the final cut figure is, it is going to be a dramatically larger amount. EPA has to have the time to gear up to be able to use that money in a cost-effective way.

Let me just terminate my remarks by saying that this is clearly the environmental issue of the decade and whether we are going to deal with it is our responsibility. I ask this committee to play the responsible role it has played in the past. You played a dramatic and responsible role in 1980 in getting money into the bill beyond what any of us in the Energy and Commerce Committee had expected. I would ask you to do the same this time.

Thank you, Mr. Chairman.

[The prepared statement follows:]

STATEMENT OF HON. JAMES J. FLORIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY, AND CHAIRMAN, SUBCOMMITTEE ON COMMERCE, TRANSPORTATION, AND TOURISM, COMMITTEE ON ENERGY AND COMMERCE

Mr. Chairman, and members of the Committee, I want to thank you for the opportunity to appear before you today as you begin your consideration of the bill I and others have introduced to extend and expand the Superfund program. The Speaker has pledged to bring the legislation to the floor of the House for a vote this summer and I appreciate this Committee's timely review of the bill so that we can meet the Speaker's schedule.

The Ways and Means Committee has played an important role in the history of Superfund, and I must acknowledge at the outset the program's debt to the wise decisions this Committee made when it was first created. As many members will remember, four years ago, those of us advocating the establishment of a federal program to clean up the thousands of abandoned hazardous waste sites which mar our nation's landscape came to the Ways and Means Committee with legislation providing modest funding for such an effort. The Committee not only agreed with us that the program should be created, it doubled the funding levels we originally thought were warranted.

If anything, the subsequent history of the program vindicates this Committee's insightful judgment concerning the scope of the environmental problem this nation must face. I therefore appear before you today confident that you will once again act decisively to provide adequate funding for the continuing cleanup effort which is so plainly warranted.

As many will remember, the current Superfund law established a $1.6 billion fund for an initial five year period. The President authorized the Environmental Protection Agency to begin the work of assessing the thousands of abandoned waste sites across the country, identifying the worst sites eligible for federal cleanup funds, and launching cleanup of those so designated. Revenues for the cleanup effort were generated by taxes on the chemical industry, plus a 12.5 percent appropriation from general federal tax revenues.

Although many of us who worked on the original legislation suspected that a second installment of the program would be necessary, few imagined the actual scope of the additional funding needs which face us today. EPA's gross mismanagement of the program in the early years, partnered with much improved data concerning the number and nature of the sites which must be cleaned up, lead any objective observer to the irrevocable conclusion that significantly expanded funding levels are crucial if we are to accomplish the goals we established back in 1980.

Consider the following basic Superfund statistics:

To date, EPA has managed to clean up only six sites, although it has already placed 546 of the nation's worst sites on the National Priorities List which defines eligibility for federal cleanup funds.

EPA expects to place at least 2,200 sites on the National Priorities List someday. Even this apparently large number represents only a fraction of the 17,000 to 22,000 sites which exist across the country and state officials dispute EPA's estimates, telling us instead that the National Priorities List will swell to some 7,000 sites over the long-term.

The current $1.6 billion Superfund will be enough to cleanup at most 170 sites of the 546 now listed. EPA says that cleanup costs for the rest of the sites it expects to place on the National Priorities List will run—at a minimum—between $8 and $16 billion.

The agency's estimates are considered extremely conservative by both the General Accounting Office and the Office of Technology Assessment. GAO tells us that ultimate cleanup costs could run as high as $26 billion and OTA predicts such costs could total $40 billion.

Based on all these facts and figures, state organizations (including the National Governors' Association) urge us to commit between $9 and $12 billion for five more years of a reauthorized program. The environmental community urges us to commit $20 billion over the next five-year period. Even the Chemical Manufacturers' Association has endorsed new funding levels of $3.4 billion, although the group acknowledges that cleanup of listed sites could take close to two decades at those levels.

The legislation you are considering today establishes funding levels for a reauthorized Superfund program of $9.5 billion over the next five years. This figure, although modest when compared to most estimates of the total price tag we have yet to face, should ensure that a massive cleanup effort can finally begin, saving our and future generations from the constantly escalating threat and cost of uncontrolled waste site contamination of our air, our drinking water and our soil.

As you evaluate the bill and the funding levels it proposes, please keep in mind that Superfund must support several essential activities in addition to basic cleanup and none of these essential activities were included in the cost estimates I mentioned earlier.

For example, current law provides for the payment of natural resource damage claims filed by the states and federal government. The current fund also supports the administration of the basic Superfund program.

Under the legislation, the fund would also be used to pay for emergency relief and health effects studies in cases where waste site contamination has damaged the health of citizens in surrounding communities.

Finally, the legislation offers desperately needed assistance to the states by establishing a 90 percent federal/10 percent state matching share requirement for long-term operation and maintenance costs of finished sites. Under current law, this 90/10 matching share formula applies to cleanup costs, but the states must assume 100 percent of the costs of supporting long-term operation and maintenance. The states have implored us to offer them relief in this important area, pointing out that they will be compelled to fund cleanup for the vast majority of sites which cannot qualify for the Superfund program and therefore cannot also assume the substantial burden of operating and maintaining Superfund sites over the long-term.

Given all these present and future needs of a reauthorized Superfund program, I hope I have convinced you that the funding levels in H.R. 5640 represent the minimal amounts necessary to launch a credible and effective cleanup effort. However, in light of the program's tragic history, and the fiscal responsibility of this Committee, I also feel compelled to reassure you that we will not throw good money after bad during this second reauthorization period.

The bill you are considering today contains several provisions designed to prevent any further waste of Superfund tax dollars. First, it places EPA's cleanup activities on a tough, mandatory schedule to ensure the appropriated escalation of the program's efforts. Second, the bill establishes clear and uniform national standards for cleanup so that the agency will no longer spin its wheels in endless internal debates over appropriate cleanup goals. Lastly, the bill strengthens the agency's existing enforcement authority so that, wherever possible, cleanup funds can be recovered from the companies actually responsible for dumping wastes at the specific site at issue.

As for the tax mechanisms which will generate the revenues to support Superfund II, the bill continues to rely primarily on the feedstock tax system contained in current law, with some important modifications. This funding mechanism, which imposes taxes on the basic chemical and metal building blocks (or "feedstocks") used in the manufacturing processes that generate virtually all of the wastes found at Superfund sites, has proven to be an extremely reliable and stable source of revenue for the Superfund program.

The current tax covers 43 feedstock substances; the bill broadens this tax base considerably by adding 20 new items to the list of substances on which taxes are assessed. The feedstock tax contained in the bill should raise $1.45 billion a year (including a 12.5 percent federal appropriation) for Superfund, starting in October 1985.

In addition to an expanded feedstock tax, the bill includes a second major new funding mechanism which imposes taxes on the land-based disposal and long-term storage of hazardous wastes. This waste end tax has two primary goals—raising additional revenues for Superfund cleanup and offering business an economic incentive to decrease the proliferating amounts of waste which are generated each year in this country. The waste end tax established in the bill should generate $600 million a year (including a 12.5 percent federal appropriation) for Superfund, starting in January 1987.

I recognize that the Joint Tax Committee has projected substantially lower revenues for the waste end tax contained in the bill—altogether, these lower revenue projections result in an estimated cumulative loss of about $1 billion over the life of the reauthorized fund. I do not agree with all of the assumptions used by the Joint Tax Committee in arriving at these lower projections and I continue to believe that the bill will raise the revenues we originally estimated. However, the most important message I can deliver to this Committee today is the overall need for the total funding levels established in the bill; $9.5 billion over a five-year period is simply the minimal amount necessary to accomplish the job that lies ahead of us.

Largely because it is a new concept, as yet untested on the federal level, the waste end tax has been the subject of considerable debate in the months since the bill was first introduced. The tax has garnered significant support from many segments of industry because it spreads the burden of supporting across a significantly larger base of taxpayers. However, some have questioned the administrability of such a tax and have argued that unless rates are set at appropriate levels, the tax could produce a negative incentive for midnight dumping and other forms of illegal waste disposal. Critics of the tax have also pointed out that the states which have experimented with similar tax systems have experienced substantial revenue shortfalls in the early years of their implementation.

In structuring the waste end tax contained in the bill, we have been mindful of these potential problems and I am confident that the tax system you have before you today substantially addresses all of these concerns. The bill's tax system imposes fees on the owners and operators of disposal sites, thereby avoiding the administrative complexity of attempting to collect taxes from the hundreds of thousands of waste generators. Rates have been carefully structured to avoid creating negative incentives for midnight dumping. Finally, the tax system plugs many of the loopholes which produced significant revenue shortfalls in the states' waste end tax systems.

I believe, in short, that the waste end tax contained in H.R. 5640 is a noble experiment which should be implemented at the federal level.

As this Committee proceeds to consider this important legislation, you will be faced with a battery of dire predictions concerning the impact of both tax systems on the economic health of the chemical industry. You will be told that the funding levels and tax rates contained in the bill will produce economic disaster for key segments of the industry and that such tax revenues—even if collected—will only be wasted since EPA cannot possibly spend such funds fast enough.

As you consider all these dire predictions, I urge you to probe carefully—as I have—for the data which backs them up. I think you will find that those who advocate these disastrous scenarios have yet to prepare a single convincing and comprehensive analysis to support their predictions. Indeed, the facts available to us suggest the opposite conclusion.

For example, the 1983 report prepared by the Joint Tax Committee on the effective tax rates for large American corporations reveals that the effective corporate tax rate for the chemical industry as a whole is *minus* seventeen percent. A temporary recession in the early years of this Administration has been overcome and many major companies are showing record profits for the last several quarters.

As for the argument that EPA cannot spend increased funding fast enough, I would be the first to agree that the current program must be fundamentally restructured in order to absorb the funding levels set in the legislation. In fact, the costs of failing to restructure the program so that accelerated cleanup can be accomplished are nearly unthinkable. At the current cleanup rate of six sites every four years, it could take 1,500 years to finish cleanup at the minimal number of 2,200 sites EPA expects to place on the National Priorities List someday. Even the expanded levels of funding proposed by the chemical industry would produce decades of delay in the cleanup effort. Each year of such delay drastically compounds both the environmental damage and human health effects of waste site contamination; the truth is that the longer we wait, the larger and more crushing the ultimate price tag we must eventually face.

Unfortunately, there are many involved in the reauthorization process who would urge you to do just that and defer the inevitable decision to reauthorize the program until next year. You will hear today from EPA and industry representatives that there is no need to rush to judgment and that any final action by this Committee should be deferred until at least next year.

Once again, the costs of such delay are simply unacceptable. Today, four years after Superfund was created, we find ourselves in the tragic position of virtually beginning the program all over again. The planning necessary to accomplish its revitalization should have begun months ago. Unless the Congress acts decisively this year, months if not years of the second reauthorization period will be lost as the agency scrambles to gear up for its new responsibilities.

There is no environmental problem more important to the American people than the thousands of abandoned waste sites which grow more controlled each year. The facts supporting the need to extend and expand Superfund are irrefutable. Our only possible course—the only responsible course—is to act, and act decisively, to ensure the future of the program as soon as possible.

Mr. Chairman, that completes my prepared testimony and I would be happy to answer any questions you may have.

Mr. GIBBONS. Thank you, Mr. Florio.

As always, you make a fine presentation and I appreciate the energy and the skill and the time that you put into this legislation. Let me assure you again we will move expeditiously. We will deliberate but dilly and dally around we will not. We know this is a high priority piece of legislation. We have a real problem on our hands. I know in my own community we have these kinds of problems and they are quite vexing to the citizens of our community.

So I commend you for bringing forth this legislation. We may make changes in the tax schedule. First I want to talk about the tax schedule. Where did your committee come up with these recommendations about the tax rates and the items to be taxed? What evidence did you have, what evidence did you consider? Did you make it available to us?

Mr. FLORIO. We will be happy to do that. In essence what we have done is to work off of the wisdom of this committee that was in our bill from 1980, that the feedstock system is essentially your system. What we have done is to expand that feedstock system, we think on a rational basis. We have included things that are appropriate feedstocks such as benzene, toluene, many of the feedstocks that in and of themselves may not be hazardous but all of which constitute the building blocks for the hazardous wastes we find in the waste dumps we are trying to clean up.

The additional tax mechanism, that is the waste end tax we have included, was included on the basis of our investigation that this would be something that could serve as an additional legitimate revenue generator and that through assessing the actual wastes that are going into these sites, it would serve not only as a revenue generator and it would be an economic incentive to generate less wastes.

We thought that that was socially desirable as well.

Mr. GIBBONS. On page 21 of a study put together for us by the Joint Committee on Taxation, they list a number of petrochemicals and on page 22 they list a number of inorganic chemicals and they show in the third column the percent of change that comes from that suggested by your committee. Are you familiar with that list of chemicals and the percent of change? I see you may have it now.

Mr. FLORIO. Yes, we have copies. Our committee has gone into that in detail.

Mr. GIBBONS. Can you describe to me what kind of, look at acetylene there. It shows you recommended a tax of $29.87 per ton which is a 513-percent increase in the tax of that substance. I picked out acetylene not for any reason other than it is first on the list.

Mr. FLORIO. Let me tell you how we generally approached all these. Quite candidly, we started from the basic policy considerations as to how much money was needed to do the reasonable job that we felt had to be done. As I say, we have come out with a figure of about $9 billion.

Then what we tried to do is to make a decision that the feedstock system was the basic system for raising money; it was stable and sure and it was proven. Then what we went back to do was to look at feedstocks that we previously included—some 40 of them, if I recall—and then added the 23 that we think should have been included and were included.

Then, I would be happy to share for the record with you our deliberations on each and every one of the feedstocks so as to provide for the raising of money without providing great economic problems for those individuals and those companies that use these feedstocks. These are our best judgments as to that midcourse point where revenues can be derived without causing economic dislocation.

Do we have the ultimate answer? Have we made the right decision in all these? Certainly, this committee will take its own independent view. I have no difficulties with your making modifications, but I would just ask that you make those modifications in light of the responsibility to make up for the shortfalls of money; that if you take out of one feedstock you better be prepared hopefully if you are going to be responsible, which I know you are, to come back and say, well, we will make up for the revenue shortfall on someone else.

This is our best judgment as to what is equitable, but, first and foremost, what it is that will raise the moneys needed to do the job.

Mr. GIBBONS. We, certainly, working together, will look at the data your committee has accumulated on each chemical and we will listen to witnesses who are here today and try to make a rational decision on that.

Mr. FLORIO. I will say one thing. You will hear from people, all of whom support the concept; they are all in the abstract in support of everything we are doing. But then they would say—and they will say it to you—fine, we support it; but not me, somebody else.

You will hear from the mining people who will tell you the chemical people should pay. You will hear from chemical people who say the waste people should pay. And that is human nature. But your responsibility, as well as ours, is to cut through all that and make the hard decisions as to how one apportions the pain. Like it or not, this is economic pain. But the pain has to be balanced against the pain of not doing what it is that we are charged with doing.

Mr. GIBBONS. Now, the waste end tax, that seems to have a controversy of its own within your legislation. Am I correct?

Mr. FLORIO. That is correct.

Mr. GIBBONS. And that is that there is some conflict between the environmentalists on that issue, some thinking that perhaps the waste end tax would discourage—encourage illegal dumping rather than as a tax avoidance.

Did you look at that?

Mr. FLORIO. We did. I don't subscribe to that theory. Let me say, my apprehensions about the waste end tax are not those apprehensions but rather that someone would—as some have—at one point CMA wanted to have this whole fund exclusively dependent upon waste end tax. We dismissed that, and CMA, to its credit, has changed its position.

I am just apprehensive about those who advocate great reliance on the waste end tax wanting to get out from under the stable funding mechanisms that are in the bill.

I am concerned about the projections—New York State, I think we have some members here from New York State——

Mr. GIBBONS. We certainly do.

Mr. FLORIO. They relied on the waste end tax for its own mechanism and found it not to be a stable source of funding. I regard this, as I said earlier, as a supplement to a basic stable funding system.

I think there is some value in using the waste end tax to provide economic incentives to waste generators to reduce their waste stream flow because of the economics. That is desirable. That is environmentally desirable. But I am apprehensive about relying too much on the waste end tax. I think our bill does not rely too much on the waste end tax.

Mr. GIBBONS. Now, competitively within different metals, in the lead industry, as I understand it, about half of the lead we use is by recovery of lead that has already been used, principally from batteries, cables, telephone cable, and so on. It is reclaimed. About half is virgin material, I understand.

We have a tax on reclaiming, but we have no tax on the original smelter or virgin material.

Mr. FLORIO. As far as lead is concerned, lead would be a feedstock under our proposal, and therefore there would be. But if I could just address what I think is your point with regard to providing incentives for recycling—and that is certainly a desirable thing to do—I would caution the committee to be careful about some who would claim to be advocating incentives for recycling when, in fact, it is not really recycling that we are talking about.

Any incentives you build into the system to provide for incentives for recycling should spell out environmental standards for recycling. You may have people coming in on the burning and blending question. I know my colleague from New Jersey and some people from New York are sensitive to this because there have been tremendous abuses in the name of recycling that some would like to write into the law. That is to say, that what goes under the name of recycling and that people would seek incentives for may well be just hazardous waste disposal, and that is not recycling. Burning of hazardous wastes in industrial boilers some would say is a recycling mechanism, and they would look for exemptions.

What we should be doing is saying, if you want to do that, you have to build that industrial boiler or improve it to the point of having environmental standards comparable to incinerators that are regulated by EPA. We can't be giving people a way out to dispose of, inappropriately, toxic wastes in the name of recycling and provide added incentives by exemptions to the Tax Code.

There are lots of practices around that are being called recycling. I am not sure if we have people from Missouri, but much of the problem there was done in the name of recycling, putting toxic wastes into road oil and getting a beneficial use. Look closely when people advocate recycling.

Mr. GIBBONS. Yes, sir.

Let's go back to lead. There is apparently a waste end tax on lead slag when it comes from the reclaimer. But there apparently is no waste end tax on lead when you have slag from a virgin ore producer.

Is there a reason for that? We got slag from one source and slag from another source. Do you remember the reason for that, or perhaps we could get your staff to help us understand why it works out like that?

Mr. FLORIO. As I indicated to you, the tax on the virgin material would be levied on the virgin material as a feedstock, so that that lead which ultimately goes into a slag is taxed; the waste product would be taxed as it goes into the waste receptacle under the waste end.

Mr. GIBBONS. All right, sir. We will take another look at that.

Mr. Conable.

Mr. CONABLE. Thank you, Mr. Chairman.

Thank you for your initiative on this, Mr. Florio.

Has any study been made about the fairness of the feedstocks system as the point of incidence of the tax? I know there was concern when we first passed this legislation that a number of feedstocks did not end up as toxic products but we wanted to spread the tax as broadly as possible—the base of the tax, that is, as broadly as possible—and we thought a fairly high percentage of the feedstocks had a potential for toxicity ultimately, and therefore that seemed like an easily administrable point for the incidence of taxation.

Now, as it has worked out, has that proved to be the case? I think one of the biggest arguments against the waste end tax is going to be the administrability of it. It is important to this committee that we have a tax that is fairly based but administrable.

I wonder if your committee looked into that at all?

Mr. Florio. The answer is yes, we did.

With respect to the feedstocks tax, as you correctly point out it had going for it the question of administrability. It was easily administered. The history indicated that that was a correct conclusion: This is easily administered; it has been successful; it has been dependable; and it is equitable.

Let me say that the feedstock concept does not contemplate that each and every one of these feedstocks is in and of itself a hazardous material. Many are. But I think it is fair to say that each and every one of these feedstocks in fact, as used in the production process for whatever product is ultimately made, does in fact generate toxic wastes that go into these sites that we are cleaning up.

We have had people bring our attention to the fact that good numbers of people take zinc vitamins in their diet. Therefore, why do we tax zinc? Well, the production process for manufacturing down zinc results, to my recollection, in cyanide, arsenic; likewise aluminum. As you produce aluminum and products from it, you produce these waste products that are extremely toxic. So it is fair.

On the waste end tax provision you are talking about, the question has been raised as to administrability. I think it is capable of being administered. It will be administered easily under RCRA, the Resource Conservation and Recovery Act, which is the statutory system we have now that manifests wastes that are appropriately deposited in licensed facilities. So you have this manifest that is calculated, that is recorded, and that will be the mechanism by which you can tabulate how many tons of whatever went into a duly certified facility, and what the assessment will be off of that.

The manifest system will be the mechanism for calculating the waste end tax. That is already in place.

Mr. Conable. But am I correct that with the feedstock tax, a great bulk, the incidence of that tax is on comparatively few companies?

Mr. Florio. It is on the chemical industry.

Mr. Conable. But are we talking about comparatively few taxpayers?

Mr. Florio. My recollection is I think we used the number under 1,000.

Mr. Conable. The bulk of it from a few of the large companies; is that correct?

Mr. Florio. That is correct.

Mr. Conable. What is going to be the effect of the waste end tax which is considerably smaller in the aggregate than the feedstock tax? Is it likely to come from a much larger number of taxpayers; and therefore, is that the element of administerability that we should be concerned about?

Mr. Florio. I think that is a fair assessment.

Mr. Conable. It will result in a great many more people dealing with the end product than the number of people who are dealing with the feedstocks?

Mr. Florio. That is correct.

Mr. Conable. So——

Mr. Florio. My only point on behalf of the waste end tax is that the collection mechanism is already out there; that these manifests, tracking wastes from the point of generation to the point of disposal, are already operational. That is the law for them. It would be a relatively simple matter to calculate on the basis of the manifests that people are required to file already, calculate the amount of the waste that is deposited on a basis of the waste end tax.

Mr. **Conable**. Do you have any studies showing the extent to which the incidence of the feedstock tax bears some relation to the point at which you are having to clean up the—the amount of money you will have to spend? In other words, are the same taxpayers for the most part the source of the problem, so that there is a cause and effect relationship? Do you have any——

Mr. **Florio**. The answer is yes.

Mr. **Conable**. The answer is yes?

Mr. **Florio**. There has been discussion about white hats and black hats as to who is responsible. There are no white hats because the fact of the matter is, prior to 1976 there were no policies; everyone was inappropriately disposing of these toxic wastes wherever they wanted to, because there wasn't a full appreciation of the problem.

All you have to do——

Mr. **Conable**. You are not saying that all corporations are contributing to the problem in the same degree, are you?

Mr. **Florio**. As a matter of fact, I probably—not at this point. The responsible industrial community knows that that is not something that is permissible or desirable. But, in the past, the fact of the matter is, across the board—I would direct your attention to the list that EPA can provide you of responsible parties at these cleanup sites, provide you with lists of defendants in actions taken by EPA, and it reads like a Who's Who of Corporate America. So no one is free from responsibility.

Mr. **Conable**. Thank you. My time is up. I appreciate your information.

Mr. **Gibbons**. Do we have Mr. Gephardt here? If not, Mr. Flippo.

Mr. **Flippo**. No questions.

Mr. **Gibbons**. Mr. Guarini.

Mr. **Guarini**. Mr. Florio, thank you very much for your forceful and compelling statements and deep concern in this very important and pressing issue.

One of the problems they say we have is that we are raising too much money too fast. I thought you would want to put on the record whether or not we need to spend this money within the period of time that you have programmed. Would you comment on that?

Mr. **Florio**. Yes.

Briefly, the answer is that all of the estimates that have come from us and from all sources say that, if anything, what we are advocating in this bill is extremely modest and extremely conservative. In 4 years of a 5-year program, 6 sites have been cleaned up out of 22,000 in the Nation. I don't know how anyone can say we are moving too fast.

Mr. **Guarini**. So administratively we have to spend that amount of money to keep up with the problem?

Mr. **Florio**. Absolutely. As my fellow New Jerseyite, you know our State has more of these sites than any other State in the

Union, and in 4 years of the 5-year program no sites have been cleaned up.

Mr. **Guarini**. That is right.

Mr. **Pease**. Would the gentleman yield?

Mr. **Guarini**. Yes.

Mr. **Pease**. I thank the gentleman for yielding.

I think the question raised is not whether $9.5 billion should be spent; it is whether it can be spent by the EPA wisely.

Would you address that question?

Mr. **Florio**. Yes.

The fact is that the EPA preliminary studies advocate spending $8 billion to $16 billion in the next 5 years on the high priority list. EPA probably will say to you that they prefer waiting until next year in order to make some evaluations. I just don't think that is desirable. EPA, if pushed, will tell you that it is extremely difficult and will be extremely difficult for them to change their operations so as to be able to go from a $1.6 billion cleanup mode to a $9 billion or whatever figure in a short period of time.

We are doing EPA a favor, whether they will concede it or not, by providing them with this year leadtime to gear up to spend the money in an appropriate way.

Mr. **Guarini**. So the money can be spent intelligently and effectively as it is programmed in your bill?

Mr. **Florio**. The answer is yes, particularly when we provide them with the guidance that is contained in this bill. Part of the delay in the last number of years is EPA internal dickering around as to how clean is clean. We provide them with the directions so they don't have to bother themselves any more with defining how clean is clean. We provide them with the standards. That should expedite their ability to move forward.

Mr. **Guarini**. Lastly, there is a question about the present economic situation and the question of the effect of this bill on the $110 billion to $120 billion trade deficit projections. With a $120 billion trade deficit, many companies say it will put them at a great competitive disadvantage if this money is collected at this time.

Can you comment on that?

Mr. **Florio**. Yes.

The answer is that that is not the case. This bill provides the tax on feedstocks. It is a tax on all feedstocks, feedstocks brought into this Nation from—foreign manufacturers pay the same tax as feedstocks generated in this Nation.

Mr. **Guarini**. Right.

Mr. **Florio**. So with respect to direct impact of the feedstock tax or waste disposal tax, imports are taxed in the same way.

Mr. **Guarini**. All right. Thank you.

Mr. **Gibbons**. Mr. Gephardt.

Mr. **Gephardt**. No questions.

Mr. **Gibbons**. Let's go to Mr. Vander Jagt.

Mr. **Duncan**. Mr. Chairman, I had a question.

Mr. **Gibbons**. First, Mr. Frenzel.

Mr. **Frenzel**. Thank you, Mr. Chairman.

Mr. Florio, we appreciate your efforts and your good work on this bill. I have a question about the amount which your committee sent to us, and I believe it is a recommendation rather than as a part of your bill.

This applies, as I see it, a 5-percent tax on the landed value of chemical imports and provides for an alternate method of paying that tax, which it looks to me like it would become the primary method of paying the tax, which seems to me to be enormously complicated.

Obviously, if we don't tax imports, we put an unfair burden on domestic producers. On the other hand, can you tell me the rationale for assessing 5 percent against importers whereas we have a 3-percent tax on domestic producers; and, second, why we assess the 5-percent on the total value of the merchandise coming in even though it might contain only a fraction of its total value in what would be a taxable item?

It looks to me as though we will have difficulty explaining your recommendation to our trading partners in the context of our international obligations.

Mr. **Florio**. We are very sensitive to the point you have raised, and in large measure that was why we made this recommendation to this committee which has not only tax jurisdiction but the trade jurisdiction that you share with our committee.

But I think it is important to appreciate the fact that there is no direct trade disincentives out of this bill. That is the feedstocks. As I said to Mr. Guarini, the feedstocks are taxed equally, imports as well as domestics.

The concern that some had was that some overseas manufacturers may attempt to avoid that tax by processing the feedstock into some product down the production line and bring that in providing them with a competitive disadvantage. I don't know how a tax system would track that. We leave that to your expertise to see if it can be done.

We certainly do not want to carry it to the extreme. We certainly wouldn't want to be taxing shampoo that may have a chemical feedstock in it so as to provide for equal treatment of the chemical feedstock domestic producer that goes into shampoo as contrasted with the foreign feedstock producers. But it may well be that somewhere between the feedstock and an end product like shampoo that there might be some way, consistent with our trade responsibilities, that this committee might be in a position to define what would be an appropriately taxed feedstock derivitive or feedstock product that would not violate our trade responsibilities.

Mr. **Frenzel**. We appreciate your respect for our jurisdiction.

I guess what I am trying to get at is, was this recommendation designed to reach a total amount of money that you were looking for?

Mr. **Florio**. No. This is a supplement to our amount of money. The recommendation is separate and apart. As I say, all the tax recommendations we make are separate and apart.

Mr. **Frenzel**. The tax recommendation which is in the bill, does that do the financing job that you want to do?

Mr. **Florio**. My response would be yes.

Mr. **Frenzel**. So this is an alternative, and obviously we have to do something with the imports. The trouble is, we have a triple whammy. We have a higher tax, a higher valuation, and we also have the fact that since they produced the product abroad they may have had to pay a cleanup tax over there and had nothing to do with creating the pollution here.

We will have to work our way through that. But it is good to know that the financing of your program is encompasssed within the bill itself and this is the alternative suggestion.

Mr. FLORIO. That is correct.

Mr. FRENZEL. Thank you very much.

Mr. GIBBONS. Thank you.

I think it is appropriate now that we recess and go to vote, and come right back. The committee will reconvene at 11 o'clock.

The next persons to ask questions will be Mr. Jacobs, Mr. Pease, Mr. Dorgan, Mr. Pickle——

Mr. ANTHONY. I think we have a 5-minute vote after that one, though.

Mr. GIBBONS. I understand that, but I will still ask the members to get back because we have a lot of work to do today.

[Recess.]

Mr. GIBBONS. All right. Let's get started again.

Mr. Jacobs, you are the first out.

Mr. JACOBS. I just have one question.

Mr. GIBBONS. Let's wait for everybody to get seated here.

Mr. JACOBS. Jim, in your statement a while ago, this may be the most important question today, only because I am asking it, but you said that you couldn't expect the EPA to do the 180 degrees next year, change their ways. Does that go even if our side wins the election?

You said that EPA would not do a 180-degree turn next year. Does that apply even if our side wins?

Mr. FLORIO. If this bill is not dealt with this year, the expectation of the administration is to start next year. It is not going to happen overnight so we are talking about legislation passed some time in the course of next year.

Let's assume we get into September of next year, and on October 1, 1985, the program expires. Then with an increased amount, which everyone concedes will be required, we are going to call upon EPA to change their whole method of operation in the space of a few days and be capable of spending larger amounts of money with different mandates as contained in any proposal in a short period of time.

I am suggesting that we are doing EPA a favor by passing this law now, giving them all of next year to make their budget request for their overall operation so that on October 1, 1985, when the new authorization goes into effect, they will be able to spend this money in cost-effective ways.

Mr. JACOBS. Thank you, Mr. Chairman.

Mr. GIBBONS. Mr. Gradison.

Mr. GRADISON. Thank you, Mr. Chairman.

Mr. Florio, one of the problems we have had on this committee from time to time with trust fund type of financing is the situation where funds accumulate in a trust fund, but the taxes keep coming in and the justification for continuing a tax in the short run becomes very hard to support. Do you have any provision so that if the balance, unexpended balance exceeds some amount, the taxes will be scaled back or not collected at all for a time?

Mr. **Florio**. We do not have contained in the bill such a provision. You may recall that in the existing law, there was such a provision so as to trigger out the taxing mechanism but it was not needed because the spending levels in the existing bill are woefully inadequate, as all acknowledge, and therefore there is no unexpended surplus that has been accumulated. I expect the same thing to happen in the next 5-year period.

The EPA numbers are $8 billion to $16 billion. That is to clean up only the national priorities list and they are talking about taking 14 years to clean up all the national priorities list, so it is clear that at the end of 5 years, they will not be done. I certainly expect the right of this committee to consider that type of proposal. I think it is almost going to be a moot gesture because this is going to be something that will not result in unexpended surpluses accumulating in the trust fund.

Mr. **Gradison**. Would you have any objection to something of that kind?

Mr. **Florio**. I think the same approach that was followed in the existing law may well be appropriate if we keep it to a certain extent—we don't want to provide any disincentives on the part of the EPA. Whoever is in charge of EPA, if they were inclined not to want to collect assessments from whomever, an easy way to do that is not to spend the money. Accumulate a surplus. That would trigger out the responsibility to collect it.

I am not saying anyone has that intention, but we don't want to provide that incentive for someone to do that sort of thing.

Mr. **Gradison**. I don't know much about chemistry. I am confused with regard to the rationale for the proposed feedstock tax rates as they apply to some chemicals, particularly some metals and not others. For example, I notice looking down the list there is a tax proposed on aluminum and some other metals, zinc, for example, nickel, any lead. I don't see iron or copper. Maybe there is an easy answer. Why not?

Mr. **Florio**. The answer with regard to why it is that we picked these feedstocks is that we picked these feedstocks not because they are themselves necessarily toxic, but they all result in toxic waste in the production process. The two you picked out, zinc and aluminum, unequivocably result in the generation of toxic wastes. Other items that are not included, we certainly would not be averse to this committee making its own deliberations as to what they think would be equitable.

Mr. **Gradison**. Copper, for example.

Mr. **Florio**. We felt in our committee that that was not something that should be assessed because there are some, particularly on the waste end side, studies that are being accumulated at EPA. What we have done is to say that pending the outcome of those studies, those substances should not be included in the waste end tax proposal.

Mr. **Gradison**. How about scrap recycling? Does this proposal tax our neighborhood junkyards?

Mr. **Florio**. Would it tax neighborhood junkyards?

Mr. **Gradison**. Scrap recyclers?

Mr. **Florio**. Well, to the degree we are talking about scrap as defined as a toxic waste under RCRA and under Superfund, the answer would be that if it is a hazardous waste, it is taxed on the waste end. If it is not a hazardous waste, it would not be taxed. The operative section is a definition of toxic and hazardous waste.

Mr. **Gradison**. How about aluminum cans in a recycling operation? Would they be taxed?

Mr. **Florio**. There is no reason to deposit an aluminum can in a licensed hazardous waste disposal facility under RCRA, and therefore, such a product would not be taxed.

Mr. **Gradison**. It would not be taxed?

Mr. **Florio**. That is right. An aluminum can that goes into a solid waste disposal system and not a hazardous waste disposal system would not be a waste end tax candidate.

Mr. **Gradison**. Thank you very much.

Mr. **Gibbons**. Mr. Anthony?

Mr. **Anthony**. Thank you, Mr. Chairman.

Mr. Florio, I first would like to thank you for all the hard work that you have put into a very complex bill and seeing that we have a roomful of people here concerned about their particular industries, an obviously controversial one. I have two questions. First, what is the amount of money that we are talking about raising over the 5-year period of time?

Mr. **Florio**. Nine billion dollars.

Mr. **Anthony**. Can you explain to me the method and the rationale that your committee used to try to come up with this amount of money?

Mr. **Florio**. Yes. This is based upon the projected number of sites to be cleaned up, particularly evaluating those that are to go on the national priorities list of sites, which are the sites that are a hazard today, and the cost per site as projected by all who have looked at it making differentiations between contamination cleanup that involves ground water contamination, which is a much more expensive process, versus contamination and cleanup that does not involve ground water contamination.

Costing out the numbers, we have come to a range of costs over the next 5 years. The low range at EPA was $8 billion to $16 billion up to high ranges of $20 billion to $40 billion by some of the environmental groups, OTA, GAO. So the answer is that this, if anything, is an extremely conservative projection as to what the cost is going to be.

Mr. **Anthony**. But the truth of the matter is that it is based on a very subjective analysis and at some point the political process has to say we are going to pick a number out of a whole range of numbers?

Mr. **Florio**. The technology for cleaning up these sites is fairly well defined. Whether the EPA projection, which ranges from 1,800 to 2,200 high priority list sites is regarded as subjective, you might say that range is subjective, but I would not define this as subjective. There is sufficient objectivity into these calculations so that you can feel very confident that when you vote for a proposal, $9 billion or thereabouts, you are talking about real numbers that are really required.

Mr. **Anthony**. But the real number you are talking about has a wide range of different opinion.

Mr. **Florio**. And this is at the bottom of the range.

Mr. **Anthony**. We are not talking about a wide range of differences of opinion, although we may be looking at some hard facts by which we can make a calculation?

Mr. **Florio**. That should not be used to in some way retreat from the bottom range number.

Mr. **Anthony**. I understand, but I am just saying there is a difference of opinion between me and you as to the amount of money and what items should be included here based on any subjective or objective analyses that are out there.

The other area that I and other members of the committee are concerned about is the taxation of aluminum. You stated just a moment ago unequivocably that toxic waste comes from the aluminum industry. I happen to represent a very large aluminum industry in the State of Arkansas in the fourth congressional district, but it does not deal with the chemical side of it. It deals with taking the bauxite and oxygen out and reducing it to the aluminite itself. I wonder whether you personally can give me any concrete scientific facts that show that the aluminum industry is creating a toxic substance that has been deposited in a hazardous waste site.

Mr. **Florio**. We are talking about the taxing of the feedstock which in fact generates toxic wastes which are in a documented way found in the sites that we are spending this money to cleanup. The expectation—it was this committee's decision 4 years ago that we should tax those feedstocks because the costs certainly will be shared through the whole production process. I respect this committee's judgment in that regard.

Mr. **Anthony**. I am concerned about this one particular area at this time. There are others that I am going to be as concerned about, but inasmuch as this is one of my constituents, obviously I am concerned at this particular point in time. Their testimony is going to show that EPA's study, upon which apparently your committee based its recommendations, does not in fact show that conclusion. They have been unsuccessful in obtaining the material upon which the study was based. At the very least I would hope that you could assist me in getting the information upon which the study was conducted so I could examine it and try to come to some conclusion as to whose position is right and whose is wrong, industry's or government's.

Mr. **Florio**. I would be happy to share with you for the record if desirable the rationale for taxing aluminum.

Mr. **Anthony**. If you have something that you could present for the record, I would like to have it and I would appreciate seeing it now.

I yield back the balance of my time, Mr. Chairman.

Mr. **Gibbons**. All right.

Mr. Duncan?

Mr. **Duncan**. Thank you, Mr. Chairman.

Mr. Florio, Section 301 of the existing Superfund law requests or provides that the President will submit a report, a comprehensive report by December of 1984 showing how the present laws are working and recommendations. Why the big rush for premature reauthorization, a year ahead, without that report?

Mr. **Florio**. Well, as I think I have stated on a couple of occasions, first of all, many of the studies are completed. The 301(e) studies, the basis for our proposal to deal with the Federal cause of action, are complete and there are other studies that are completed, the fundamental study as to the operation of the system and recommendations as to funding levels likewise is out there in the record. It is a matter of record. It is the basis upon which EPA preliminarily has recommended the $8 billion to $16 billion figure. The fact is that the rationale for going forward this year is as I stated before not to go forward this year is to inevitably leave us to running up against a deadline next year to have a bill that is going to be again by overwhelming consensus a fairly substantial expansion of this program.

We already know what deficiencies are in the program. We correct those in this bill by mandating schedules, setting cleanup schedules and setting cleanup standards. There is no reason to wait until next year and there are good reasons not to wait until next year because of the inability of EPA to change its whole system on very short notice.

Mr. **Duncan**. Another question, and I don't doubt that your information that you have received may be correct, from the source that you received it. I was wondering, you indicated that the petrochemical sector of the chemical industry has been very profitable in the last 2 years but the information I have is that chemical employment, including employment in that industry in your own State, has dropped almost 50,000 people in the past 2 years and that the petrochemical sector's 1983 sales were 85 percent of the 1980 level.

Mr. **Florio**. I will be happy to, if you want me to, go into intimate detail about the earnings of each of the chemical people, the corporate salaries being paid. I am not sure how productive that is.

Mr. **Duncan**. I am talking about the feedstock sector of the chemical industry.

Mr. **Florio**. The feedstocks are paid by the chemical industry for the most part. We are talking about chemical companies that I would represent to you are doing relatively well.

Mr. **Duncan**. But the information I have is that it is only 85 percent of the 1980 level and employment is down in that sector. That is what this bill will affect, that sector of the chemical industry. I think your figures may be from the entire chemical industry, but I am wondering also——

Mr. **Florio**. If I could suggest, going from 2 percent of the sales price as was the case in 1980 to 3 percent of the sales price of these feedstocks is not a burden on the industry that the industry cannot handle.

Mr. **Duncan**. Well, industrywide, but I am talking about this sector of the industry.

Mr. **Florio**. We are talking about this sector that is going to pay the feedstock tax.

Mr. **Duncan**. In other words, those figures that I just gave are wrong?

Mr. Florio. I am suggesting to you that the appropriate figures to be reviewing is the overall economic health of those companies that will be paying feedstock——

Mr. Duncan. Wouldn't there be some incentive to just drop that section of their business if they are losing money?

Mr. Florio. The answer is that we heard these same arguments 4 years ago——

Mr. Duncan. Apparently the arguments were valid.

Mr. Florio. I would be happy to compare your analysis of the economic health of these companies with ours and it indicates that in these 4 years, notwithstanding the great burden that was supposed to be placed upon them, these 4 years they are doing very, very well.

Mr. Duncan. What about the cost to consumers? Companies don't pay taxes, consumers pay taxes, and what about the ability of the companies, these sectors I am talking about, to export and compete?

Mr. Florio. Let me just suggest to you, and I say this respectfully, go and talk to the consumers who live around the 22,000 sites that are scattered across the country and ask them what the cost of not doing anything is.

Mr. Duncan. I am not suggesting that we not do anything. I am suggesting that maybe we can spend $2 billion, because there is no question about that, but whether we can do it efficiently or not, I think that is something that we should look very carefully at. I know this is an election year. Some advocate a lot of new taxes. Some of us don't advocate new taxes. I think it is something that we should not hastily do in this committee is to add new taxes, prematurely, without we knowing where we are going. I think it is irresponsible.

Mr. Florio. The injection of discussions about an election year at the same time that some of us are advocating a tax system here seems to be hypothetical. If that helps you in dismissing the thought that there is some political election year benefit from this, you make an effective case that this is not a wise thing to be doing in the traditional way of reviewing election year politics.

Mr. Duncan. Was the reason that the copper was left out from some political consideration?

Mr. Florio. I don't think so. The argument was made by some of the members of the committee that this was not something to be done. It is not written in concrete. We have again in a sense appropriately shifted to you the responsibility of making the final tax decisions and certainly we will abide by your suggestions.

Mr. Duncan. Thank you very much.

Thank you, Mr. Chairman.

Mr. Anthony. Mr. Chairman, could I be recognized for 30 seconds to clarify a point?

Mr. Gibbons. Yes.

Mr. Anthony. I understand that you have requested further information from EPA and EPA has not responded to your latest letter. I would encourage that EPA forthwith address your letter so we can make it part of the record. We then would have all the data before having too make a decision.

Mr. **Gibbons**. I have asked Mr. Florio if he would help us so we could save as much time as possible and he has agreed to get his staff to work with ours and to get all the information that they have obtained as to the rationale for this. We are going to have to work together. We have a very limited amount of time to make a decision, and I want to encourage everybody on the committee here, we have a great number of witnesses today waiting to be heard, and let's make it as rapidly as we possibly can.

Mr. Pease?

Mr. **Pease**. Thank you, Mr. Chairman.

I appreciate the testimony of Mr. Florio. He has done a fine job and I commend him for it. I have one question and that relates to the effect on competition of American companies with foreign companies because of the tax. You have told us that chemicals coming in from overseas would be taxed at the same rate as chemicals produced in the United States; is that correct?

Mr. **Florio**. That is correct.

Mr. **Pease**. So, theoretically, that would even things out. What about the situation where American companies are producing chemicals for export to be sold in the export market? Would those chemicals be subject to the American tax?

Mr. **Florio**. Feedstock production, the feedstock tax would be levied against them, yes.

Mr. **Pease**. It would, but presumably they would not be subject to a similar tax if France produced the chemicals. Would that not put American companies at somewhat of a disadvantage in international trade?

Mr. **Florio**. I am not sure we mandate that France levy a comparable tax on domestic production. I suppose you are saying that if another country doesn't levy a tax on their feedstocks, that our export products may be at a disadvantage. That may well be the case.

Mr. **Pease**. Did you look at the possibility of exempting from that tax production from American chemical companies which is exported overseas and not used in the United States?

Mr. **Florio**. We did not. Let me say, if we are talking about most of our competitors who are Europeans, they don't have the same problem that we do in cleaning up toxic waste because they have factored the cost of appropriate disposal into their production process and their environmental regulatory mechanism. We haven't done the studies, but I suggest you are talking about those costs that we are now just starting to appreciate having been factored into their production process so there may well be no disadvantage.

Mr. **Pease**. That would be a good thing to check into.

Mr. **Gibbons**. Are you saying their chemicals already bear the cost because they are factored into their cleanup process?

Mr. **Florio**. No; if somehow our chemicals would be at a competitive disadvantage in the export market, if in fact in Switzerland or Germany they don't levy a comparable feedstock tax for whatever purposes—we have no authority to make sure they do that, but my observation is they don't have the cleanup problems we have because they have adopted regulatory policies and production policies that don't allow inappropriate random disposal and that the cost of those policies have probably been factored into their production process.

Mr. **Gibbons**. Thank you, sir.

Mr. Dorgan?

Mr. **Dorgan**. Thank you, Mr. Chairman.

Mr. Florio, I intend to offer an amendment at an appropriate time on the fertilizer exemption and I would like to, for the record, get your comment. You have added phosphoric acid to the feedstock tax list and about 90 percent of that is used for fertilizer and when it is used for fertilizer, I want to make certain through an amendment that that is exempt.

Mr. **Florio**. The answer is that we offered a technical amendment clarifying toward the end you describe so that whatever you are intending to do probably is not at variance with what our intention was if it is what I think you intended to do.

Mr. **Dorgan**. Thank you, Mr. Chairman.

Mr. **Gibbons**. Mr. Schulze?

Mr. **Schulze**. Thank you, Mr. Chairman.

Mr. Florio, thank you for your testimony. It has been very enlightening. I, too, share a concern of others on the committee of our trade imbalance and whether this will have a relative effect or an exacerbating effect on the trade imbalance.

I gather from what you have said that you are convinced that it will not, is that true?

Mr. **Florio**. That is the case inasmuch as the exact same tax is levied upon imports as is levied upon domestically produced feedstocks.

Mr. **Schulze**. Your previous statement to Mr. Pease, was that other chemical-producing nations have for quite a lengthy period of time had disposal costs factored into their prices.

Are you surmising that or are you stating that as a fact?

Mr. **Florio**. I am surmising that, because they don't have the problem that we have. Therefore, they have been disposing of their toxic wastes in appropriate, which means expensive, ways that we are not just learning about.

Mr. **Schulze**. It could be that they have not yet either been made aware of the problem, or it has not been brought to public light or it has been buried in such a way that it has not come about?

Mr. **Florio**. That is true.

Mr. **Schulze**. I am asking you for information as to whether your committee looked into that, and your answer is that you did not, you are just surmising that.

Mr. **Florio**. With regard to the development of the exporting question that Mr. Pease raised, and with regard to the importing question, in terms of direct competition from imports, we have looked into that and have established this law in a way so that the exact tax is levied against imports as domestic feedstocks.

Mr. **Schulze**. I understand that. Now, would this not have the effect of encouraging the manufacture of additional products overseas before being shipped here, rather than shipping in feedstocks for the manufacture of the products in the United States?

In other words, if I were a manufacturer and I was going to be taxed if I shipped in the raw materials, but I would not be if I took it a step or two further along the production line, it would certainly pay me, or I presume it would pay to go ahead and further refine that product overseas rather than in the United States.

Mr. **Florio**. The answer to the question is of course, that was the same argument that was made 4 years ago. It does not happen. I don't expect it to happen. My main concern if I could respond in the context of Mr. Frenzel's conversation with me, was that if you have some way of dealing with that hypothetical problem in accordance with our trade responsibilities to our trading partners, I have no difficulty, I certainly don't want to see any adverse impact upon our domestic industry.

Mr. **Schulze**. You say that 4 years ago, that argument was made and you say it has not had impact. If you could give us the figures on that, I would love to see it. I am not disagreeing with you, but could you back that up——

Mr. **Florio**. We will be happy to provide you the statements and the information we have with regard to the economic health of the affected industry and how it has done very well over the past 4 years.

Mr. **Schulze**. Percentage of imports and exports and so forth, have all been maintained or increased?

Mr. **Florio**. I would be happy to provide you the information. As with most business entities, they are most concerned about the bottom line.

Mr. **Schulze**. The bottom line doesn't mean much to us, because we are talking about volume of imports and exports. We are falling behind as a nation.

Mr. **Florio**. I will be happy to talk about monetary policy or anything else. I don't think if those import-export questions——

Mr. **Schulze**. Volume of exports and imports and value.

Mr. **Florio**. The fact of the matter is attributable to what, the dollar——

Mr. **Schulze**. Sure. I have heard, and I can't back this up, that there are 10 companies who are the major causes of pollution or dangerous pollution or excessive pollution by dangerous waste in the country.

Is that true or is that false?

Mr. **Florio**. Ten major companies are the cause of pollution?

Mr. **Schulze**. That produce 90 percent of the hazardous waste, some kind of a statement like that. Does that ring a bell?

Mr. **Florio**. The statement you may be referring to is there is a relatively small number, 10 or 12 companies that are the major generators of the feedstocks that produce the problem chemicals we find in toxic wastes.

Mr. **Schulze**. I am talking about the end result. In other words, is it a true statement that there are about a dozen companies who produce the majority of the hazardous waste in this country?

Mr. **Florio**. I am not sure. I will be happy to look at a list——

Mr. **Schulze**. Isn't that the problem we are trying to get at, the production of hazardous waste?

Mr. **Florio**. The answer is no, that is not the problem we are trying to get to. The problem we are trying to get to is cleaning up the past practices. We have laws on the books now that will stop——

Mr. **Schulze**. We are not looking forward at all, we don't care who is producing it now?

Mr. **Florio**. Not under Superfund. We are looking at past practices. We have another law to try to discourage——

Mr. **Schulze**. Couldn't we kill two birds with one stone—don't we have anything that tells us who is producing hazardous waste now? That shocks me.

Mr. **Florio**. The answer is, we have under Resource Conservation Recovery Act, there is a system whereby all hazardous wastes that are deposited in appropriate sites are tracked and monitored.

EPA is here. They can probably tell you because they are charged with the responsibility of monitoring that law.

Mr. **Schulze**. How about the data about who has produced it in the past?

Mr. **Florio**. There is some information. The fact is, we are cleaning up 40 or 50 years' worth of wastes prior to 1976, when nobody kept track.

Mr. **Schulze**. I feel strongly about some degree of responsibility. If we are saying everybody pays for it, but five people have created it, I think that is wrong.

Mr. **Florio**. I see your point. We provide in this bill, as we provide in Superfund, strong enforcement laws on the part of EPA if they will use them, which they have not, to go after those that caused the problem to recapture the money to replenish the fund, so we don't have to go out and keep raising more.

Mr. **Gibbons**. Thank you, Mr. Schulze.

Mr. Pickle?

Mr. **Pickle**. Thank you, Mr. Chairman.

Mr. Chairman, I don't have a question so much as I have a statement. There seems to be a practice by the various authorizing committees to pass certain legislation requiring a tax increase and then to send that legislation to the Ways and Means Committee as though it should be an easy job for our committee to raise the necessary amount.

You are raising now $8 to $10 billion over a 5-year period of time. That is a sizable sum of money for a very needed purpose. There may be questions, though, about the base that should be used for the taxing purposes or the number of years over which the taxes should be raised.

Now, your committee, particularly, passes legislation, and expects us just to raise the taxes, almost as if it is an afterthought. It is not an easy matter.

I am simply saying to you, as a matter of practice, I would hope that the Energy and Commerce Committee would have better coordination with the Ways and Means Committee. I trust that you have talked to our leadership about this as you progressed with your legislation.

We do not wish to involve ourselves in a jurisdictional dispute, but now we face a job of raising a sizable tax and there are questions about it.

I am just asking that there be close coordination between the two committees, because this committee, one of these days, is going to balk at a well-meaning program because we are tired of adding another tax. So we ask for close coordination with you.

Mr. **Gibbons**. All right.

Let's go now to Mr. Moore.

Mr. **Moore**. Thank you, Mr. Chairman.

At the outset, I would like to comment so my colleagues know where I am coming from. I guess I may be the only guy on the committee that has every aspect of this problem in his congressional district, from the production of the feedstocks to the production of the base metals, that are all taxed as feedstocks, to the production of the eventual oxides and finished chemical products, that are the building blocks of the ultimate thing that is built, to the creation of the waste to the storage of the waste.

Unfortunately, my district is saddled with all of it, and my State, so there is no one part of this bill that is more important to me, or less important.

Mr. Florio, in the existing law, we very carefully set up a proration of the tax burden among certain industries, the petrochemical industry, the inorganic chemical industry, and the petroleum industry, so that all pay certain percentage amounts, based upon, as I understand it, the percent of building blocks they constructed, or they made, which wound up at hazardous waste sites.

Has that percentage been changed in the bill before us?

Mr. **Florio**. Well, I think you give a degree of precision in terms of percentage at the waste sites, a good number of which have not even been fully surveyed for percentage. In determining the percentage of a waste in the toxic soup that we find in many of these waste sites, to indicate in any way that that is a precise calculation would not be, I think, 100 percent accurate.

This was this committee's best determination as to what the appropriate allocation of moneys was to be 4 years ago. I respect that decision, and I think we have roughly tracked what it is that was done.

We have made modifications because we have learned things. There are some 20 new feedstocks that are included that are appropriately included, I think, so we have expanded the feedstock base, and we have made modifications in light of the need for more revenues, quite frankly.

Mr. **Moore**. The question I am asking is, is the proration still the same or has it been changed by the inclusion of the new tax rates and the new items to be taxed, based upon what is found at the waste sites?

Mr. **Florio**. It is basically the same.

Mr. **Moore**. The next question I have is, are there any building blocks ultimately found in hazardous waste sites that have not been included in H.R. 5640? Did you consider some and not include them?

Mr. **Florio**. There were some factors. For example, fertilizer was regarded as a product by some that should be taxed, and there were others who said, well, it really is not a basic building block as such.

There were a lot of these decisions that were made on the basis of the committee's best judgment as to equity. There would be a dispute on this committee as to whether fertilizer should or should not be included.

Mr. Moore. Could you furnish this committee, for markup next week, a list of building block feedstocks that are found in hazardous waste sites that you did not include?

Mr. Florio. I would be happy to.

Mr. Moore. A question about the funding level. Rather than looking at the $9 billion, I don't dispute what may ultimately be necessary. That is not the point of the question.

The point is that we have to raise the money as it is needed. We have had a very bad experience in dealing with an airport trust fund, for instance, where we raised the money and it is not spent.

We don't want to cause any problems out there raising taxes to make it look like it is balancing the budget or whatever. Can you tell us on an annualized basis what needs to be spent or can be spent so we can then judge how much we must raise each year?

Mr. Florio. The answer is that this bill encompasses the best judgment of what is needed to be spent, it is roughly a little less than $2 billion per year from 1985 through the next 5-year period, and the fact of the matter is that is our best judgment, and there really isn't too much by way of contradictory evidence as to that being more than is required.

As I say, the previous bill, the bill that is a law now, did put in a mechanism in the next to last year that would trigger out the tax collection mechanism if there were accumulated surpluses.

I am not philosophically opposed to that concept in the fifth year of the next 5-year cycle, as long as we don't impact the ability of EPA, particularly in the outyears, the fourth and the fifth year of the next 5-year cycle.

Those are going to be big construction years. The first years, of course, will be the years when you do the preliminary assessments, but when you get into shovels in the ground, that is when you will need the dollars.

I would not want to see us accumulate some money, have an unexpended source of money that would be put into use in the third, fourth, and fifth year in construction, that would trigger the moneys being made ready, being used to stop the collection system.

I am suggesting, if you are going to think about or do something in that vein of making sure that you don't have surpluses, just do it with an awareness of the fact that the outyears are going to be the big years for actual dollars required.

Mr. Moore. So, you raise $2.2 billion a year, but you don't necessarily in those first years spend $2.2 billion a year?

Mr. Florio. The waste end tax doesn't trigger until 1987, so we are talking about feedstocks being supplemented by the waste end tax.

Mr. Moore. You don't spend everything you raise every year?

Mr. Florio. We don't tell EPA how much to spend on an annual basis, but what we do do in this bill is to establish some mandatory schedules that I think roughly correlate with the spending requirements that EPA will be obliged to live with if they follow as they must, because we are writing it into the law our scheduling process.

Mr. Moore. How does that correlate with the amount of money you are raising each year?

Mr. Florio. It correlates directly.

Mr. **Gibbons**. It comes close.

Mr. Gephardt.

Mr. **Gephardt**. Thank you, Mr. Chairman.

I have read Mr. Thomas' testimony and it would appear that there is a disagreement as to the substance of the bill between your committee and EPA, especially on some of the mandatory scheduling. I think he is saying that if that mandatory scheduling provision stays in, it might even slow down the progress. And I will ask him questions about how that relates to the funding level, which is really our jurisdiction.

I am not trying to get into those questions, but assuming that a disagreement exists, if one does, does that affect your thinking about how much money will be needed and when it will be needed?

Mr. **Florio**. It does not, largely on the basis of other things that are in this bill that are going to make EPA's job easier. This is a Federal-State relationship. Much of the delay in EPA's actions in the past, putting the bad faith activities of EPA at one point aside, much of the administrative mechanical delay that has occurred has been addressed in this bill. Many of the States say they haven't got the capability of dealing with their requirements and their responsibilities, and that has resulted in delay.

We changed that. The standards of how clean is clean, our changing that, spelling out directions to the EPA will enable them to go forward. It may well be that EPA is saying that under the existing procedures, rules and regulations that we are following, and nonprocedures that they are following, they aren't going to be up to dealing with this problem in an orderly way.

I suggest that their preliminary study which talked about the $8 to $16 billion over the next 5 years is their study which contemplates what is going to be needed, and they maintain a pattern and schedule to deal with the high priority sites over the next 5 years. They have already talked about these things. And I think that if you ask Mr. Thomas as to whether he wants to wait until October 1, 1985, to get his instructions as to how to gear up on October 2, 1985, I think he will tell you that that is an administrative nightmare that he would not want to face; that he would rather have the information now and the bill should be passed now to give him that direction.

Mr. **Gephardt**. The second question has to do with the composition of the taxes. I know you have apportioned it, and that was covered in the last question.

Do you have objection to changing in some way the composition of the taxes to put more of the weight on the end user tax or more of the weight on a broader tax on the corporate community? Do you have any strong feelings?

Mr. **Florio**. The answer is no, I do not have any difficulties with this committee making its evaluation or judgment. I would hope that its overriding goal would be the raising of appropriate levels of revenue, and I think the levels here are appropriate and that you should be very concerned about ensuring a stable source of funding.

I happen to think the feedstock system is the most stable system, and administratively we need a form of raising these moneys efficiently, and that within the guidelines of those types of considerations I certainly will look forward to seeing what this committee does.

There is nothing sacred about how it is that we have written—it is our best judgment based on your best judgment of 4 years ago.

Mr. **Gephardt**. Thank you, Mr. Chairman.

Mr. **Gibbons**. Thank you, Mr. Gephardt.

Mr. Thomas.

Mr. Campbell.

Mr. Thomas, I am sorry.

Mr. **William Thomas**. Mr. Florio, the list that we have before us in your legislation, where did it come from? Did you use the EPA five-criteria list from 1980 and their hazardous ranking system data in terms of sites? Were those two items that you used?

Mr. **Florio**. I didn't catch the first part of what you said. The list of sites?

Mr. **William Thomas**. The five criteria for the 1980 list, was that used?

Mr. **Florio**. I am not sure I follow which list you are talking about.

Mr. **William Thomas**. In 1980, there was a criteria for taxing developed for EPA. Questions were asked to determine whether or not the items would be taxed by the original legislation, questions like: Are hazardous wastes generated in making the taxable raw material, in its intermediate or final product? Et cetera.

Mr. **Florio**. Those factors were factors that this committee used in coming to the conclusions as to what the system was to be in the 1980 bill. The system in this bill is a variation of that. In large measure, the vast majority of the measure, is the same feedstock system.

Mr. **William Thomas**. OK.

In looking at the 1980 list and the list in the current legislation, there is a substance which has been added which was not on the 1980 list, because it apparently did not meet any of those criteria, and that substance is oxidized boron. In its natural state, it is (B) as an element, and when you run sulfuric acid with it, it becomes B-203. If it wasn't on the original list, the assumption is it didn't meet any of those criteria.

My question is, how did it get on the list?

Mr. **Florio**. We get about $11 million annually out of the proposal from that material. It is used to make fiberglass insulation; has been found at nine Superfund sites; and waste generated in making the insulation have been found at the sites.

Mr. **William Thomas**. If it is found in nine sites, how many sites were tested?

Mr. **Florio**. There were lots of sites——

Mr. **William Thomas**. How many is "lots"? I can't deal with that.

Mr. **Florio**. There are 546 sites.

Mr. **William Thomas**. There are 691 sites. So, out of 691 sites tested, 9 showed boron trioxide.

Now, none of the criteria used for establishing a hazardous waste product applied to boron trioxide. In fact, the only two that could be applied would be that hazardous wastes are generated making the raw material, and raw material is generated in significant volume.

Oxygenized hydrogen also qualifies under those two levels, and H_2O of course is one. If you want to go after the tax dollar, I think you should talk about putting a tax on water, which is used in the production of hazardous materials.

What I don't understand is that when you take a product like boron trioxide, which is totally stable, which is not hazardous itself and doesn't meet the criteria used to generate the 1980 list, and was found at only 9 of the 691 sites, which is de minimis when you look at the other substances that have been found and placed on the list, it seems to me it boils down to the criteria that it is generated in large volumes and it gets you tax money, and I don't think that should be a reason to put a product on the list.

Mr. FLORIO. The feedstock system is a system that this committee recommended as a building block mechanism that is an appropriate base for raising the moneys to clean up these wastes, most of which are from the feedstocks or are derivitive by-products of the feedstock, as is the case with this material.

So the answer is, if we are going to do the same thing and maintain that some of these things are not in and of themselves toxic, and therefore that is not the way to raise the money, I have no objection to alternative ways of raising money being suggested.

Mr. WILLIAM THOMAS. We should look at derivitives of zinc, sulfates, and others, or aluminum, and examine the number of times they occurred in dump sites. I am willing to create some kind of objective criteria. I ask that we don't start with the idea that we need money, examine those used in large volumes, and work backwards.

It seems to me there are substances on the list that are on the list merely because you were looking for money. If this is a rationale for taxation, look at hydrogenated oxygen, because it meets the same criteria to be on the list that boron trioxide does.

Mr. GIBBONS. Thank you.

Let's go now to Mr. Campbell.

Mr. CAMPBELL. Thank you, Mr. Chairman.

Mr. Florio, I was a little concerned as I listened to a line of questioning by Mr. Gephardt and a statement by Mr. Pickle about the costs and coming to this committee for the tax money. I am not sure we know what the costs are. When I listened to Mr. Gephardt's repeating of testimony that will be given by the EPA, that in fact this bill might cause a slowdown in the cleanup, because the figures they use are that the additional administrative type burdens, burdens of scheduling and so forth, will add $7.4 billion to their costs, which means essentially all we are doing is raising money in the broad sense for purposes—not to deal with what the existing purpose of the Superfund was.

Now, if all that is the case and we put it in, do we really know what the cost is going to be over 5 years, or are we looking at coming back here and having to raise enormous new taxes to meet the new purposes and to prevent the slowdown of the cleanup, because I want to proceed with the cleanup?

Mr. FLORIO. I find it interesting talking about having EPA being required to slow down. In 4 years of a 5-year program, they have cleaned up six sites. I don't know how you can slow down much more than that.

I want to disabuse everyone here of the idea that we will be finished with this in the next 5 years. We will be back at the end of 5 years, because this is not a problem that will be resolved in a quick period of time. The key is getting EPA underway. We trusted to the discretion of EPA in the past, and that trust was abused.

We are saying that we have to have not only the money—we have to have some sense of direction. Where we gave them the ability to define the guidelines, they don't do that.

I don't think anyone is prepared to say, here is this big amount of money without guidelines. The administration and EPA is saying that guidelines will slow them down. We just arrived at the opposite conclusion.

Mr. **Campbell**. Let me ask you this. Perhaps I am wrong in the figures I have seen, but I understand we have a known 18,000 or so sites in the country, and it may go up a little, maybe go up a lot, I don't know. I understand you have done preliminary work on 8,000 to 10,000 of those sites, preliminary surveys.

Now, if that is the case and they have had about 100 removal actions ordered on a national priorities list, you are saying they only completed 6 but they have the others underway. Is that factual?

Mr. **Florio**. Let me just say that opening files in some instances is defined as undertaking action.

Mr. **Campbell**. What about the 100 removal orders?

Mr. **Florio**. Removal actions are where you come on a site and there are drums on the site and it is causing a problem and you remove. That is fine. I have no difficulty with that. But that is not remedial work to cleanup the toxic waste sites we find in the country. We should give appropriate credit for that but it should not in any way seduce us into feeling comfortable with what is happening.

Mr. **Campbell**. If we add in the leaking drums and tanks and petroleum, which is an additional program and we delay the long-term toxic cleanup for some maybe 20 or 30 years because of it, what it may have done, I don't know, I don't think any of us do. What I am concerned about is by imposing all of the new criteria, broadening the scope, going with this large a tax immediately, I honestly am concerned that we are only opening the door on the tax. If the bill does cause a slowdown, the argument will be that EPA slowed down, why haven't you spent more, and then come back for more to do it.

You told me we will revisit these issues by the end of this anyhow.

Mr. **Florio**. My response is that without the regulations, directive, and guidelines we give EPA, it is totally irresponsible to give them this big new chunk of money to operate in the way they have operated for the last 3 years.

Mr. **Campbell**. I would have some agreement with that. Let me switch a moment, my time is running out. Someone in questioning a while ago said there was a 50,000 drop in employment in the chemical industry. Now, I would like to ask a question about some of the other industries that are heavily dependent on chemicals that are having trouble from other quarters, the dollar, et cetera, but that are having to compete. Textiles for instance lost a quarter million jobs. I would like to know what consequences you think this tax that we impose here is going to have on industries dependent on chemicals when they are competing with an end product coming from overseas that you cannot tax because you will violate GATT and everything else?

How will we handle that situation?

Mr. FLORIO. Our best judgment is that what we are trying to do is balance economic impact with environmental concern and the impact of not cleaning up the wastes. Our best determination in a conservative way is this is the bottom line number to clean up so as not to have the economic impact visited upon this Nation of not cleaning up these wastes.

Mr. CAMPBELL. Do you think this will lead to offshore relocations of industry?

Mr. FLORIO. Those are the same arguments we heard 4 years ago that have not occurred and the answer is no, I don't think this will be a major economic dislocation across the industry. If there are specifics and I know there are some——

Mr. CAMPBELL. I mean dependent industries, also.

Mr. FLORIO. I am talking about the chemical industries and those who may be dependent. I don't think this will be a great economic dislocating factor.

Mr. CAMPBELL. If we cannot tax imports coming in because of GATT then we are in a problem with our end product industries, right?

Mr. FLORIO. But we are imposing the tax on the feedstock products that do come in.

Mr. CAMPBELL. Like the compounds, they are so complex it is difficult to know exactly what we are doing, right?

Mr. FLORIO. Well, maybe.

Mr. GIBBONS. Mr. Archer.

Mr. ARCHER. Thank you, Mr. Chairman.

I think we have established this morning very clearly that what this fund attempts to do is cleanup orphan sites, sites where we cannot attribute wrong doing to any specific entity, is that correct?

Mr. FLORIO. Not necessarily. Orphan sites is a term that is used. The major purpose was to cleanup those sites that are not capable of being cleaned up immediately by the person—either the corporation is not there, or the person who caused it is not willing to clean it up.

Mr. ARCHER. But if there is responsibility established then the government will be reimbursed for its expenses?

Mr. FLORIO. That is right.

Mr. ARCHER. By the perpetrator, is that correct?

Mr. FLORIO. That is correct.

Mr. ARCHER. So all we are talking about here is raising money to cleanup some sites where there is no responsibility from any private source to clean them up.

Mr. FLORIO. That voluntarily comes forward to clean them up, that is right.

Mr. ARCHER. You have made a big point about how the Europeans all along have had requirements for cleanup that have been factored into their product. But in your program that you are presenting to us today as a proposal you would tax people and make people pay into a fund who may or may not have had anything to do with the dump sites being cleaned up. You are going to tax the innocent as well as the guilty because you are not attempting to make that determination.

If the determination can be made, the perpetrator will be forced to clean up the dump. We have established that. I think we should set that as a tone for all these hearings and what we are about to do. We are taxing the innocent with the guilty and there is no way to divide them out.

Mr. **Florio.** Mr. Archer, there is no innocent population here. The industries that are being taxed have all contributed to the problem that exists. The responsible parts of industry no longer do that.

Mr. **Archer.** I am not saying there are not guilty that will be taxed, but if you started a new chemical business today you would have to pay the tax in spite of the fact that you were disposing of your wastes in accordance with all the rules of the EPA and were not causing problems for anyone. You still would have to pay the tax, though.

Mr. **Florio.** Yes.

Mr. **Archer.** We have to understand that, as a predicate for what we are doing, the innocent will be taxed along with the guilty.

Now, having said that, you want to reauthorize now for 5 years. Originally you wanted a permanent authorization.

Mr. **Florio.** Yes.

Mr. **Archer.** Recognizing that it is going to take more than 5 years to clean up these sites you wanted a permanent authorization. Why have you shortened this?

Mr. **Florio.** The fact of the matter is it was not regarded as politically salable to authorize this as a permanent fund until the Congress deauthorized it and quite frankly, the five years modification was in the spirit of compromise to get the bipartisan support for this bill that it currently has.

Mr. **Archer.** Do you agree with EPA that there are going to be 1,800 sites on the national priority list when all of the investigation is done?

Mr. **Florio.** The Governor's Association says probably something like, I think they are talking about 7,000. EPA has varied. They initially said 1,500, then 1,800. I think they are up to 2,200 at this time. Mr. Thomas is here and he will give you updated revisions. But it is speculative. No one is saying anything less than 1,800 on the high priority list. That is sites that are imminent and substantial hazards to people's health today.

Mr. **Archer.** How long do you think on average it is going to take to cleanup each site?

Mr. **Florio.** The priority sites?

Mr. **Archer.** Yes.

Mr. **Florio.** I think some have—there is one in my district——

Mr. **Archer.** On average.

Mr. **Florio.** On average? You cannot give averages because the fact is if you are talking about a site that has drums that can be hauled away, you can do that tomorrow. If you are talking about contamination into an aquifer that you are going to have to set up systems whereby you siphon the wastes out, you can be talking about a 12-year project. But the fact of the matter is EPA is working off the numbers of $8 to $16 billion required to cleanup the priority list sites over a 14-year period.

Mr. ARCHER. Eight to $16 billion over a 14-year period?

Mr. FLORIO. Eight to $16 billion as the 5-year first installment and projecting a——

Mr. ARCHER. It would take 14 years?

Mr. FLORIO. Yes. That is EPA's study.

Mr. ARCHER. What does that average out to per year?

Mr. FLORIO. Well, 8 to 16, whichever number, over 5 years.

Mr. ARCHER. I thought you said over 14 years.

Mr. FLORIO. No, the 8 to 16 billion is the amount EPA has said is required in the first year period on a projected schedule that will take 14 years to cleanup the national priorities list sites.

Mr. ARCHER. Will the private sector be obligated to pay any portion of the cost of cleaning up the priority list dumps?

Mr. FLORIO. Yes.

Mr. ARCHER. To what extent, what percent of the cost will be paid by the private sector?

Mr. FLORIO. One hundred percent if EPA pursues under the right circumstances a generator who is responsible for the problem. The law now requires EPA to pursue and recover 100 percent of moneys expended out of Superfund to clean up that site.

Mr. ARCHER. What is estimated to be the average recovery cost relative to the 150 sites per year that you are talking about cleaning up?

Mr. FLORIO. The average recovery cost?

Mr. ARCHER. What percent of the cost of cleaning up the 150 sites per year will be recovered from the private sector?

Mr. FLORIO. It depends upon the appropriate degree of liability.

Mr. ARCHER. On average? Surely your committee has studied this and has some idea of what we are looking at?

Mr. FLORIO. EPA is talking about $44 million a year recovery which I think is extremely optimistic.

Mr. ARCHER. Well, I see my time is up, Mr. Chairman. I am sorry that I cannot pursue questions.

Mr. GIBBONS. We have lots of time to deliberate. We will be here most of the evening and all of today it looks like.

Mr. DOWNEY. Mr. Chairman.

Mr. GIBBONS. Mr. Downey, yes.

Mr. DOWNEY. First of all, let me commend our colleague for the fine work he has done over the years as one of the fathers of Superfund. He has in my opinion performed in an exemplary way. I am delighted that he gave some credit to those of us who wanted to increase the size of the Superfund last time because we didn't think it was enough and we knew the gentleman was laboring under the requirements of making a compromise.

But we don't labor, at least in this committee, under the same menace.

Even if we give you this additional money, what guarantee is there that the money will be spent properly? You have correctly characterized this program as a national disgrace. Is it likely to continue as a national disgrace only with more money?

Mr. **Florio**. I am hopeful not. We will continue to exercise our oversight capability. It is our oversight deliberations as a matter of fact that resulted in our proposals that are in this bill as to what it is we have to do to make sure that those in charge of the program are serious about the program. I am convinced that the people who are there now have a commitment to going forward and I am hopeful that they will do that.

I realize that there are some considerations which weigh on the side of their presenting the testimony that they are presenting today which has no relevance to the bill but I am prepared to accept that. I think there has been a dramatic improvement from the previous people who were there.

Mr. **Downey**. I have faith in the bureaucracy of the EPA and its new leadership is certainly better than the old. But I have yet to be convinced that this is something that they will pursue zealously. In an election year, they may pursue it more zealously than in a nonelection year. You have pointed out that even if we provide this additional money that we still will be not cleaning up all the toxic waste sites, is that correct?

Mr. **Florio**. That is correct.

Mr. **Downey**. So would you be adverse if we wanted to increase the revenue rates so there would be more money so we could clean the rest of them up?

Mr. **Florio**. I would not be adverse but I would hope we would do it in a way to provide the directions that supports the entire bill to be sure that the moneys are spent correctly. None has any interest in raising money for the sake of raising money. I think the whole bill has to be adapted to be sure it is spent correctly.

Mr. **Downey**. Would you give me suggestions of where there are reasonable areas to increase revenue beyond the $9.5 billion?

Mr. **Florio**. Yes, in the area of more assistance to the States. The States are having difficult times raising the money to deal with their share of the responsibilities. So it is in the State area that we can provide more assistance than we have even in the bill.

Mr. **Downey**. What about this entire question of individual liability, the person who believes his or her child has leukemia as a result of a toxic waste site. How are we addressing that particular concern in this bill?

Mr. **Florio**. What we are doing in a separate part of the bill is to provide for a Federal cause of action for someone who has been injured to prevail in the courts, if not even to prevail, just have a fair shake. One of the things done in the Superfund bill was to commission a very authoritative blue ribbon panel, the 301(e) study, that after deliberations came back and said the toxic tort system we have in this Nation is atrocious, that no one is going to have a fair opportunity to prevail in the current litigation system.

We have instances where people are thrown out of court because the statute of limitations have run before they have discovered the injuries out there. The Federal cause of action is the most significant thing we do to provide people with an opportunity for some redress.

Mr. DOWNEY. Is there a realistic way for individuals or States—given the fact that many of these sites have existed for a long time—to actually go after the perpetrators and collect from them? Has the experience been one of successful litigation against dumpers?

Mr. FLORIO. It is a mixed review. Many of the sites have—are sites that were initiated by people who are bankrupt, or gone, but the fact is even if you can find the person that caused the problem the judicial morass that exists almost precludes under existing law people having their fair day in court.

Mr. DOWNEY. So for the person who is in a position to be living near a toxic waste site or who has been harmed by one they are not, as I found in the past coming from Long Island where we have several in a position to be terribly reasonable or interested in legal arguments or, other arguments, when they feel their children are threatened.

What we have decided to do here—I don't want to characterize the view—is to make a compromise because we have a health crisis that we have to deal with and we have to have the revenue to deal with it. Is that not correct?

Mr. FLORIO. That is a correct assessment I think.

Mr. DOWNEY. Mr. Chairman, I hope that during our deliberations we will carefully consider what our colleague, Mr. Florio, a true expert on this matter, has said and as for me I am going to explore putting more money into this fund because it is absolutely essential that we clean up all the sites and do so as quickly as possible.

Mr. FLORIO. If I can briefly say on the health effects study, part of the dilemma people run into is that there is no direct scientific absolute proof about causation and some other questions. We should be—in the same way we deal with agent orange—be having studies by some authoritative source, EPA, CDC, whoever. At the sites we should be spending moneys to clean them up and we should be evaluating the impact on the people directly contaminated by some of the sites. We should provide health effects studies money and that would be an important area to expand if anyone is considering expanding it.

Mr. DOWNEY. Thank you. I thank you very much.

Mr. GIBBONS. Thank you, Mr. Florio. And thank you, Mr. Downey, I remember your fine assistance on this bill the last time we had it up on the floor. We look forward to working with you again.

We are going to break now for a vote. We will come back as soon as the vote is over. We will continue down the list of witnesses and we will go just as rapidly as possible.

I will take a bacon, lettuce, and tomato on whole wheat and a Pepsi if you can find it. Let's go vote.

[Recess.]

Mr. GIBBONS. All right, ladies and gentlemen, let's resume.

Our next witness on the list is Mr. Thomas Bliley of Virginia.

Mr. BLILEY. Thank you, Mr. Chairman.

Mr. GIBBONS. Glad to have you here.

Mr. BLILEY. Mr. Chairman, I have submitted for the record a statement and realizing the many witnesses you have and the long day ahead of you, I will not read it. I will merely paraphrase it.

Mr. GIBBONS. We will put the whole statement in the record and anything else you want to include.

STATEMENT OF HON. THOMAS J. BLILEY, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Mr. BLILEY. Basically this amendment I offered in the Commerce Committee, it has the support of Chairman Dingell and Subcommittee Chairman Florio and it was adopted on a unanimous voice vote.

What it would do and the reason I am here, Mr. Chairman, is because it deals with the waste end tax. It would eliminate from the waste end tax those companies that take liquid burnable waste and use it as a fuel or for another process. It came to my attention because a firm in my district does this to make lightweight cement.

Now, in order for anybody to do this they would have to have an approved permit from EPA which meets what is commonly known as the four nines destruction efficiency test, 99.99 percent pollutants removed.

So that there is not any attempt, there is no danger should you in your wisdom see fit to adopt this, no danger of people using this as a gimmick and not really accomplishing the purpose that is basically it. It is a technical flaw, I believe, in the EPA Act that prevents them currently from granting these permits to these type people. That is the whole purpose for the amendment. I hope that it will be your pleasure to incorporate it in the legislation and if you have any questions I will try to answer them.

[The prepared statement follows:]

STATEMENT OF HON. THOMAS J. BLILEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Good morning, Mr. Chairman, members of the committee. I appreciate having this opportunity to appear before you today. I intend to keep my remarks brief, because you are all no doubt already familiar with the actions of the Energy and Commerce Committee on this issue. I also intend to be brief because later today you will hear from another individual on this same issue. He is Louis Lawson, and he will be prepared to give you details concerning the energy recovery facilities which I'll be talking about this morning.

I come before you today to request that this Committee adopt a recommendation that the Commerce Committee had adopted during our mark-up of H.R. 5640.

The amendment I offered in the Commerce Committee, which passed by unanimous voice vote with the support of Chairman Dingell and Subcommittee Chairman Florio recommends that the Ways and Means Committee exempt energy recovery facilities from a waste-end fee or tax, should the Committee decide to impose such a fee or tax.

Because you will hear from Mr. Lawson on some of the details of how energy recovery facilities operate later today, I would just like to give you some background on this issue.

First, I believe it is accurate to say that the only reason that there is not an energy recovery facility exemption in the current language of H.R. 5640 is purely an oversight. Had the Commerce Subcommittee which Congressman Florio chairs known of the existence of such facilities, they would have included them in the exemption section of H.R. 5640. Once we became aware of these facilities and the way they operate, the Commerce Committee members, particularly Mr. Florio's staff, worked with EPA to fashion an appropriate exemption from the waste end fee.

Energy recovery facilities manufacture a number of products, such as lightweight aggregate, cement, steel and lime, to name but a few.

One such facility in my district in Richmond, Virginia, uses waste as fuels for the combustion that occurs in its manufacturing process.

The language of H.R 5640 before you for consideration grants an exemption from the waste end fee or tax for incinerators which burn hazardous wastes if they meet the burn efficiency standards that the EPA has established. These standards, commonly known as "four-nines", require that the facility must achieve 99.99 percent destruction efficiency.

The language of H.R. 5640 exempts incinerators meeting these standards. However, since EPA does not now include energy recovery in its definitions of incineration, energy recovery facilities will not be exempt from the waste end fee once they are regulated.

EPA has indicated and still intends to begin regulating energy recovery facilities in the near future. For that reason, it is important that the Ways and Means Committee exempt energy recovery facilities along with incinerators, should you decide to adopt a waste end fee or tax.

There are important points to be made about how we encourage the reasonable and even useful disposal of hazardous wastes. Many experts agree that hazardous wastes present a growing problem in the United States, and it is vital for Congress to encourage their wise disposal.

Indeed, my belief in the need to reauthorize the Superfund program is based on my idea that polluters must be made to bear the costs of protecting our people. But I also believe that we should do more than just punish offenders. We should give companies guidelines and incentives for handling hazardous wastes responsibly.

Energy recovery facilities meet such a challenge head on. Not only do energy recovery facilities burn hazardous wastes to the "four nines" destruction efficiency standards, they also make useful products. Lightweight aggregates are used in the construction of bridges and buildings, allowing these structures to last longer and resist wear better, and with less weight.

Unlike incinerators, however, energy recovery facilities actually purchase hazardous wastes from producers to use as fuel.

So, energy recovery facilities do essentially three things, all goals of Superfund. They efficiently destroy hazardous wastes; they make a useful product in the process; and they make the disposition of hazardous wastes a competitive venture that hazardous waste users are lured to.

By granting energy recovery facilities an exemption from any waste end fee, we can at once encourage the safe and efficient destruction of hazardous wastes, and encourage that destruction to serve us at the same time.

I thank the Committee for its indulgence. Thank you, Mr. Chairman.

Mr. GIBBONS. You support the rest of the bill, too, is that correct?

Mr. BLILEY. I support the idea of the Superfund. I do have some problems, Mr. Chairman, one, in that there is a lack of concrete data based largely on the fact that we in 1980 authorized a study that will not be in until the end of this year. I am also concerned about the fact that the narrowness of the base for the tax—in other words, about 70 percent of the tax, is going to be paid by about 12 firms.

I am also concerned about whether the EPA will be able to in a proper way spend the amount of moneys that will be generated.

Finally, I guess a concern I would have, shared by Mr. Archer on the committee, in that there is a—there is no consideration given to the amount of money that will be recovered from private industry of the people who caused the problem to start with. But I am certainly in favor of maintaining the Superfund and maintaining it adequately to do the job.

Mr. GIBBONS. Fine.

Mr. Moore.

Mr. MOORE. No questions, Mr. Chairman. Thank you.

Mr. GIBBONS. Thank you very much.

Next we have a panel of witnesses, Hon. Ron Wyden, Member of Congress from Oregon, and Hon. Claudine Schneider, Member of Congress from Rhode Island.

Claudine, I don't see Ron but we will certainly be happy to hear from you.

STATEMENT OF HON. CLAUDINE SCHNEIDER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Mrs. SCHNEIDER. Thank you.

Let me begin by thanking you, Mr. Chairman, for the opportunity to appear before you and I would like to address specifically the proper funding mechanism for the Superfund program we have been discussing in part and that of the waste end fee.

I would like to commend both Mr. Florio and Mr. Lent for forging an improved Superfund Program with both the funding and guidelines to deal with one of the most pressing problems this country faces.

There are no other members that can match the understanding of the complex issue of hazardous waste management better than Mr. Florio and Mr. Lent.

I would like to bring to your attention, Mr. Chairman, that last week both the Wall Street Journal and the Washington Post carried articles describing toxic waste merry-go-rounds—situations whereby the waste, contaminated wastes that are being removed from Superfund sites with Superfund money, are now being deposited in other sites which are now beginning to leak or they lack proper monitoring systems. The EPA estimates that more than 20 of these repository sites may eventually need some Federal cleanup help.

There are numerous complications posed by this land disposal method. In order to address the whole problem of land disposal, my colleague and I, Ron Wyden introduced a proposal to amend the Superfund with a waste-end fee tax.

As you know the waste end tax is to be applied to the particular method of disposal of toxic waste, waste disposed above ground in surface impoundments or landfills is taxed at the rate of $30 per metric ton for highly toxic waste and $10 per metric ton for less toxic wastes. Wastes injected into underground wells is taxed at a rate much lower, at $5 per metric ton. Waste that is treated, recycled or reused would be exempt from the waste end tax.

The purpose of the waste end tax is twofold. First, to increase the flow of revenue for the cleanup of toxic sites on the Superfund priority list. Second, to provide a marketplace disincentive to the use of dangerous land disposal methods.

No one should underestimate the need for increased revenue for Superfund. As discussions have indicated, the total cleanup cost for the 2,200 worst sites that EPA has discovered would run between $8 and $16 billion over the coming years. Nor should anyone underestimate the tremendous alternatives to land disposal. Last spring, the Office of Technology Assessment noted that 75 percent of land disposed waste could be safely treated or reused, 76 percent of these wastes is disposed of on site, which I think is important, unfortunately, these new technologies remain more expensive and much less popular than land disposal.

During prior hearings and committee consideration, several objections were raised pertaining to the proper implementation of the waste end tax. Specifically, concern has been expressed about the administrative feasibility of the tax and the relationship between a waste end tax and incidents of illegal, midnight dumping.

These will be addressed by Congressman Wyden when he arrives. But I would like to talk for a moment about a proposal which may come in front of the committee to exempt wet wastes from the waste end tax and to apply the tax only on a dry weight basis. Simply put, this means to ignore the water content of wastes for tax purposes.

Congressman Wyden and I have both studied the merits of the dry weight proposal and have concluded that it should be rejected. Shifting to a dry weight basis will reduce the revenues for the Superfund Program and needlessly increase the complexity of collecting the waste and taxes.

More specifically, we oppose the dry weights for the following five reasons:

One, it would make the administration of the waste end tax much more complicated and expensive. The cost of determining dry weight has been estimated at $20 per barrel, an amount more than the usual tax liability.

Two, although proponents suggest that there is no harm from the water associated with wet wastes, liquid waste is often more difficult to contain and more volatile than dry waste.

Three, a prudent adjustment of tax liability between very high volume liquid wastes and solid wastes has already been addressed in this bill by applying a lower tax on the deep well injection of liquid waste.

Four, switching to a dry weight basis would dramatically reduce Superfund revenues by, in essence, exempting one of the most widespread disposal practices—underground injection.

Five, a dry weight tax would narrow the taxable base for the waste end tax and substantially increase the burden on industries which produce larger amounts of solid waste. These industries include electric, gas and sanitary services; trucking and warehousing; blast furnaces and steel mills; petroleum and coal products; agricultural chemicals; and industrial organic chemicals.

Clearly, the change to a dry basis for the waste end tax will complicate the administration of the tax and significantly reduce the revenues available for cleanup of toxic waste sites nationwide. In order to recoup these lost revenues, it will be necessary to apply the tax on dry waste as high as $100 a metric ton. This certainly is an unfair burden for a minority of waste producers to bear.

Obviously, we all are concerned with the effect of a waste end tax on industry competitiveness. According to statistics compiled by the EPA, the application of a $10 a metric ton waste end tax would increase by less than 2 percent the cost of production for virtually every industry nationwide. This long-term cost—in the form of Superfund cleanups and individual health bills—will be the result of continued reliance on land disposal.

I think, Mr. Chairman, it is also important to note that a short-term investment in new disposal technology can often save a company money over the long run. The best example of that is the experience of Allied Corp. in Metropolis, IL. Last year, Allied invested $4.3 million in a plant to recover the hazardous byproduct of their chemical production. That initial investment will be returned to the company in 3 years, because the company saves $1 million a year in storage pond maintenance, and uses the recycled waste to produce other, fluorine-based chemicals.

In bringing this proposal through the legislative process, Congressman Wyden and I have successfully rebutted all objections to the waste end fee proposal. We have convinced interested colleagues that the waste end tax is a workable and administratively feasible proposal, one that will have the double benefit of increasing revenue for the Superfund, while creating a marketplace incentive for the use of environmentally preferable methods of toxic waste management.

The waste end tax offers us the incentives and the opportunity to move toward a toxic free future. I hope the committee will give the proposal its unanimous approval.

I have looked at the Joint Tax Committee report, I agree that it raises legitimate questions, but all of these can be satisfactorily answered. I would be delighted if the chairman would agree to allow me to provide members of this committee with written rebuttals to those objections that have been raised so that you may ultimately give your unanimous approval of the bill and of the waste end fee in particular.

Mr. Chairman, I would just like to make a few additional points in reference to one of the comments that Mr. Frenzel had made. He had asked what is the purpose of this waste end proposal?

I have to share with you that as a member of the Science and Technology Committee I listened for 4 years now to testimony from engineers and scientists, all of whom said that we have the technological capability to recycle and reuse 75 percent of our wastes.

I sat there and thought well, if we can do it why aren't we doing it?

The answer is that we needed an economic incentive. The waste end fee provides such an economic incentive. It is a way to raise more money but the concept behind this approach is broader than that. Why do we continue to have to spend taxpayers' dollars to clean up the wastes that we have polluted our countrysides with? We should be preventing future Superfund sites. We should be preventing future hazardous wastesites from occurring. This is a preventive medicine approach that will be more cost-effective in the long run.

I will also share with you that as a member of the Investigations and Oversight Subcommittee of Science and Technology, we have had numerous hearings about the impact of hazardous wastesites and their health impact and the billions of dollars that are currently being spent to draw those correlations between public health and the environment.

From the outset, after the inception of this bill, I had approached the Chemical Manufacturers Association. I sat down with the environmentalists, thinking the best way to move this idea along, best way to move this legislation along, was to build a coalition of often differing viewpoints. Those parties agreed at the outset with the concepts.

Now, what remains for the Ways and Means Committee to do is to take the fine points that we have outlined and this concept, and look at it in a more technical tax point of view. As I was on my way over, I said I was on my way to testify before Ways and

Means, and they said, "Oh, you are going to see the bean counters." So be it. If you are the bean counters, here is your opportunity to take a concept that I believe is futuristic in its approach, that is cost-effective in its approach, that is equitable both to industry and to the consumer, and to better define what you may see as some of the ruffled edges. But push forward the waste end fee concept so that ultimately we will be looking toward less of a heavy reliance on our taxpayers, on our industry, and will provide for us a more suitable environment and more appropriate public health for all.

Thank you, Mr. Chairman.

[The prepared statement follows:]

STATEMENT OF HON. CLAUDINE SCHNEIDER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Thank you for the opportunity to address the distinguished Members of this Committee on the subject of the proper funding mechanism for the Superfund program. Before I begin, I would like to extend my deep appreciation to Mr. Florio and Mr. Lent for forging an improved Superfund program which provides the appropriate funding and guidelines to deal with one of the most pressing problems facing our country today. No other Member of this Body can match their understanding of the complex issue of hazardous waste management.

Last week, both the Wall Street Journal and the Washington Post carried articles describing "toxic waste merry go rounds"—situations where toxic waste is removed from contaminated sites with Superfund money, only to be deposited in other sites which are leaking or lack a proper monitoring system. The Environmental Protection Agency (EPA) estimates that more than 20 of these repository sites may eventually need some type of Federal cleanup help. This system of carting waste from one dangerous site to another exposes for all to see the inevitable dangers and complications posed by the land disposal of hazardous waste.

In an effort to address the problem of excessive reliance on land disposal, my colleague Ron Wyden and I introduced a proposal to amend the Superfund with a waste end tax. As you know, the waste end tax is to be applied to the particular method of disposal of toxic waste. Waste that is disposed above ground in surface impoundments or landfills is taxed at a rate of $30 per metric ton for highly toxic waste, and $10 per metric ton for less toxic waste. Waste that is injected into underground wells is taxed at a rate of $5 per mteric ton. Waste that is treated, recycled, or reused would be exempt from the waste-end tax.

The purpose of the waste end tax is two-fold. First, to increase the flow of revenue for the cleanup of toxic sites on the Superfund priority list. Second, to provide a marketplace disincentive to the use of inherently dangerous land disposal methods.

No one should underestimate the need for increased revenue for Superfund. EPA Administrator William Ruckelshaus predicts that, at a minimum, total cleanup costs for the 2,200 worst sites in the country will run between $8 billion and $16 billion over the coming years. Nor should anyone underestimate the tremendous potential offered by treatment and recycling technologies as alternatives to land disposal. Last spring, the Office of Technology Assessment noted that 75 percent of land disposed waste could be safely treated or reused. Unfortunately, these new technologies remain more expensive and much less popular than land disposal.

Some analysts have suggested to Committee members that the real danger occurs not with all methods of land disposal, but with land disposal that takes place off the manufacturing site. To set the record straight, 96 percent of all toxic waste is disposed on site. The real problem lies with inherently unsafe methods of land disposal, whether they are used on site or not. The task which Congress faces in designing an effective and farsighted Superfund is to establish a means to reduce the reliance on land disposal. We believe that the "waste-end" tax accomplishes that task.

During prior hearings and Committee consideration, several objections were raised pertaining to the proper implementation of the waste end tax. Specifically, concern has been expressed about the administrative feasibility of the tax and the relationship between a waste end tax and incidents of illegal, midnight dumping. Out of respect for the time constraints on Members of the Committee, Congressman Wyden alone will address these concerns.

I would like to talk for a moment about a proposal which may come in front of the Committee to exempt "wet" wastes from the waste end tax and to apply the tax only on a "dry" weight basis. Simply put, this means to ignore the water content of wastes for tax purposes.

Congressman Wyden and I have both studied the merits of the dry weight proposal and have concluded that it should be rejected. Shifting to a dry weight basis will reduce the revenues for the Superfund program and needlessly increase the complexity of collecting the waste end taxes.

More specifically, we oppose the dry weight for the following five reasons:

(1) It would make the administration of the waste end tax much more complicated and expensive (the cost of determining dry weight has been estimated at $20 per barrel, an amount more than the usual tax liability).

(2) Although proponents suggest that there is no harm from the water associated with "wet" wastes, liquid waste is often more difficult to contain and more volatile than "dry" waste.

(3) A prudent adjustment of tax liability between very high volume liquid wastes and solid wastes has already been addressed in this bill by applying a lower tax on the deep well injection of liquid waste.

(4) Switching to a "dry" weight basis would dramatically reduce Superfund revenues by, in essence, exempting one of the most widespread disposal practices—underground injection. A recent incident of leaking injection wells in Vickery, Ohio indicates that this method of disposal has significant drawbacks.

(5) A "dry" weight tax would narrow the taxable base for the waste-end tax and substantially increase the burden on industries which produce larger amounts of solid waste. These industries include electric, gas and sanitary services; trucking and warehousing; blast furnaces and steel mills; petroleum and coal products; agricultural chemicals; and industrial organic chemicals.

Clearly, the change to a "dry" basis for the waste-end tax will complicate the administration of the tax and significantly reduce the revenues available for cleanup of toxic waste sites nationwide. In order to recoup these lost revenues, it will be necessary to apply the tax on "dry" waste as high as $100 a metric ton. This certainly is an unfair burden for a minority of waste producers to bear.

Obviously, we all are concerned with the effect of a waste end tax on industry competitiveness. According to statistics compiled by the EPA, the application of a $10 metric ton waste end tax would increase by less than 2 percent the cost of production for virtually every industry nationwide. Moreover, this relative small short-term cost will be many times less than long-term cost—in the form of Superfund clean ups and individual health bills—which will be the result of continued reliance on land disposal.

It is also important to note that a short term investment in new disposal technology can often save a company money over the long run. As a case in point I offer the experience of Allied Corporation in Metropolis, Illinois. Last year, Allied invested $4.3 million in a plant to recover the hazardous byproduct of their chemical production. That initial investment will be returned to the company in three years, because the Company saves $1 million a year in storage pond maintenance, and uses the recycled waste to produce other, flourine-based chemicals.

Mr. Chairman, in bringing this proposal through the legislative process, Congressman Wyden and I have successfully rebutted all objections to the waste-end fee proposal. We have convinced interested colleagues that the waste-end tax is a workable and administratively feasible proposal, one that will have the double benefit of increasing revenue for the Superfund, while creating a marketplace incentive for the use of environmentally preferable methods of toxic waste management.

The waste end tax offers us the incentives and the opportunity to move towards a toxic free future. I hope the Committee will give the proposal its unanimous approval.

Mr. GIBBONS. Thank you, Mrs. Schneider. We appreciate the confidence and vigor with which you attack that subject, and we will be calling on you to help us with it because there are many things that we do not quite understand about it.

Mrs. SCHNEIDER. I would be delighted to offer any additional assistance.

Mr. GIBBONS. Do my colleagues have questions?

If not, thank you very much. When you see Ron, tell him we will be waiting on him.

Mrs. **Schneider**. I will do that. Thank you.

Mr. **Gibbons**. Next we have Hon. John Chapoton, Assistant Secretary for Tax Policy, U.S. Department of the Treasury.

Before you sit down, I want to say I read in the newspaper that you are going to desert us and go back to Texas, and I know that that will greatly improve the standard of Texas by your return, but we will miss you. You have done a fine job here in a very tough role, and we have learned to appreciate you and understand you, and we thank you for all the help you have given to this committee and to your country.

Mr. **Downey**. Mr. Chairman?

Mr. **Chapoton**. Thank you, Mr. Chairman. I appreciate that.

Mr. **Downey**. Mr. Chairman, could I add my words to those of yours?

Mr. **Gibbons**. Sure.

Mr. **Downey**. I don't know if this will help you or hurt you in Texas, but I want to say, at least for this member, that I am always skeptical of Republicans. But you are one Republican who has made me a believer that you can be fair, honest, hard-working and effective. I shall miss you as well.

Mr. **Chapoton**. Thank you very much, Mr. Downey. I sincerely appreciate that.

Let me just say, as I think all of you know, Mr. Chairman, and the other members of the committee, I have truly enjoyed working with this committee and I have loved every minute of it, even the minutes when I might not have looked like I was loving it so much.

Mr. **Jacobs**. Mr. Chairman, I wanted to incorporate by reference what the chairman and what Mr. Downey of New York have said, ditto times nine.

Mr. **Chapoton**. Thank you.

Mr. **Moore**. In an effort to continue to embarrass our friend, Mr. Chairman, I want to comment that I don't think there has ever been a more affable, honest expert on tax law serving the administration than the gentleman formerly of Texas. It has been a pleasure to work with him. We have gained by his knowledge and skills. And it is public service's loss that he leaves the public service on the 1st of August.

Mr. **Gephardt**. So that the hearing will be over this month, Mr. Chairman, I just want to add my voice to all that has been said and redouble it. Thank you.

Mr. **Downey**. I just want to know if Mr. Chapoton will finally be in the top tax bracket as a result of this move?

Mr. **Chapoton**. I am examining that now, Mr. Downey.

Thank you very much, gentlemen. I do appreciate it. I am pleased to be here today.

Mr. **William Thomas**. Mr. Chairman?

Mr. **Gibbons**. Mr. Thomas, go ahead.

Mr. **William Thomas**. I think the accolades are personally earned, and once you leave the Government I know that your true worth will be determined by the private sector. And I just want people to realize after the years and clearly the professional service that you have offered the public sector that you will be rewarded commensurate with your ability, and I want people to reflect on the rewards that Mr. Chapoton has in front of him and the sacrifices that have been made.

I personally want to thank you for what you have done.

STATEMENT OF JOHN E. CHAPOTON, ASSISTANT SECRETARY FOR TAX POLICY, U.S. DEPARTMENT OF THE TREASURY

Mr. CHAPOTON. Thank you very much.

I am pleased, Mr. Chairman, to be here this morning to present the views of the Treasury Department on the tax provisions of H.R. 5640. At the outset, I want to emphasize the administration's continuing commitment to protecting the public and the environment from the release of improper disposal of hazardous chemical substances. The President reaffirmed his commitment to these goals on July 11 of this year in his transmission to Congress of the 14th Annual Report of the Council on Environmental Quality.

We support the basic objective of H.R. 5640 to reauthorize the taxing provisions of CERCLA. In the past 3 years, the Treasury Department has participated with the other administration agencies in an intense review of CERCLA and related legislation to determine best how we can fulfill the President's commitment to the environment. Reauthorization of the taxing provisions before the current law expires in September next year is a top administration priority, but we believe it would be more appropriate to defer reauthorization and any refinement of the CERCLA legislation until the administration's review of the CERCLA and related legislation is completed.

Let me emphasize that the comments I make address only taxing provisions. Mr. Thomas of the EPA will testify on titles I through IV of the bill. I will be very brief in the description of title V.

It would, of course, increase the excise tax on domestic and imported crude oil. Section 502 would repeal provisions of CERCLA that established the postclosure liability trust fund. Liability for damages from release or threatened release of hazardous waste from waste sites after their closure would therefore remain with the responsible parties for such facilities and taxes already collected from owners and operators would be refunded.

Effective January 1, 1987, H.R. 5640 would impose a new waste end tax on the disposal of certain hazardous substances, the amount varying from $5 to $30 per metric ton, depending on the amount of hazardous substance disposed of and how they are disposed of. If the substances are disposed of at a qualified facility, the owner or operator would be liable for the tax. But if the disposal were not at such a facility, the person depositing the substances would be taxed.

Unlike the current tax, the revenues would be added to the Superfund. Section 504 would add certain chemicals to the presently taxed list and delete others, and of course raise the tax, a matter which has been discussed already.

An amendment recommended to the committee by the House Energy and Commerce Committee would also impose a flat 5-percent tax on the value of substances imported, and that is a matter that you have also discussed.

Let me say a few words about the current feedstock and waste end taxes, and then discuss the proposal to change these taxes. The feedstock tax enacted by CERCLA reflects a policy decision that the Federal Government action taken to clean up and contain spills or releases of hazardous substances and the payment of damages for claims when responsible parties are not known should be funded by the users of the substances rather than by general revenues. Although the feedstock tax has been criticized on the grounds that the tax collected from any individual firm is not based on that firm's actual experience with hazardous substances, and provides at best a rough form of justice, the tax is premised on the fact that there are environmental costs associated with the use of hazardous substances.

It was originally anticipated that the tax would be reflected in the price of the end product and in effect borne by all persons using the hazardous materials.

The IRS has not encountered substantial difficulties in administering the feedstock tax. The current waste end tax was first levied on October 1, 1983, and is imposed only on owners or operators of qualified hazardous waste disposal facilities. The tax is based on the amount of waste deposited at the facility. But because the tax was not imposed until October of last year, the IRS has had little experience in administering this tax.

The revenues from the waste end tax, of course, go into the postclosure liability trust fund; and because the payment of tax shifts liability for postclosure damages to the Federal Government, the tax can really be equated with premium payments for postclosure Government liability insurance paid by the owners and operators of these facilities.

At present, EPA is studying the impact of various state-imposed waste end taxes and will submit its recommendation to the President on the use of waste end taxes before the year end.

Turning to the proposed changes in 5640, it would increase the tax on crude oil and imported petroleum products nearly six-fold, and would increase the tax on certain feedstock chemicals three to five-fold.

In general, it is likely that a manufacturer would be able to pass onto its customers most of the increase, but, of course, the extent to which that can be done will depend on a number of factors.

And it is going to be difficult to determine whether the tax will be passed along in a particular case, since there are a large number of chemicals involved, and they are sold in a wide variety of market conditions.

More information on the economic impact of the taxes will be available from the congressionally mandated studies currently being conducted by EPA that are scheduled for completion before the end of the year.

The import tax recommended to the committee by the Committee on Energy and Commerce is intended to prevent the feedstock tax from discriminating against U.S. producers and while it will accomplish this objective, if it can be administered as conceptualized, it should be noted that substances produced abroad that are not hazardous and not used in domestic production of hazardous chemicals or waste do not present a potential danger to our environment.

Consequently, the import tax cannot be justified on the basis that it taxes hazardous substances that pose a threat to our environment.

In addition to this conceptual problem, implementation of the import tax presents serious administrative problems. Before the proposed import tax could be imposed, it would be necessary to both identify the chemical components of imported substances and in some cases, the processes employed to produce such substances.

This would require constant chemical analysis of imported goods and factual investigations into foreign manufacturing processes. Take, a perhaps unlikely example, if table salt were imported, it would not be subject to the tax if it were mined or extracted from sea water, but it would be if it were produced by reacting sodium hydroxide with hydrochloric acid, substances both subject to the feedstock tax.

Under the recommended import tax, the IRS would have to determine whether imported salt was manufactured by reacting chemicals or whether it was mined, so we have serious administrative problems with the import tax.

We have also got concerns about the proposed waste end tax. In contrast to a feedstock tax, the waste end tax is more direct to taxing the persons responsible for the environmental damage that required further remedial action.

Properly structured, a waste end tax could be an important tool for encouraging sound waste management practices. A waste end tax, however, creates environmental concerns and may encourage disposal of hazardous substances in nonapproved sites, so-called midnight dumping.

EPA is presently studying the impact of various State-imposed waste end taxes, the impacts they have had on waste management techniques and they will submit their findings in their reports.

From our standpoint, the Treasury Department is seriously concerned about the administerability of the waste end tax embodied in H.R. 5640. The bill specifies that the tax will be paid by the owner or operator of a permitted disposal facility or by the party disposing of hazardous substances other than at such a facility.

EPA estimates that there are approximately 1,200 permitted facilities and several hundred thousand businesses that generate hazardous waste in small quantities, such as the neighborhood gas station or a dry cleaners.

Under the bill, any business that does not dispose of its waste in a permitted waste disposal facility will be subject to the tax.

This would require the IRS to monitor virtually every small business in order to verify compliance with the tax and it is just not practical for IRS to monitor the waste disposal method of every taxpayer likely to generate hazardous waste.

If we have monitoring of that magnitude, it will have to be done by EPA or by State regulatory authorities. To attempt to do it through the tax system, is going to be very difficult if not impossible.

Finally, we have concerns about the proposed termination of the post-closure liability trust fund. We agree in principle with the shifting of the burden of post-closure liabilities to those persons responsible for disposing of hazardous wastes as would be done under the bill.

But we are concerned that adequate private insurance may not be available to cover the long-term liability of operators and owners of hazardous waste disposal facilities.

In March 1982, the Treasury Department issued a report which studied the feasibility of substitutes of private insurance for the current statutory scheme under which postclosure liabilities are assumed by the postclosure liability trust fund.

In that report, we concluded that comprehensive private insurance is not feasible now or in the foreseeable future. The report did not address whether some sharing of liability between the Federal Government and the private sector would be a viable alternative, and the report was based upon the private insurance market shortly after enactment of CERCLA.

So, it may need to be updated. The EPA study is scheduled for release shortly, and will address these issues. Again, we stress the action taken to modify and extend CERCLA ought to be postponed until the EPA report is issued.

As a final matter, H.R. 5640 would require the IRS to refund all taxes paid to the postclosure liability trust fund. We would just point out that in some cases, the refunds might constitute a windfall to the taxpayers, since they may have passed on their cost to customers, and indeed, the cost of administering the refund procedure could well exceed the refunds thus far generated by the tax.

So, we suggest as an alternative, if the postclosure liability trust fund is to be terminated, it could be transferred to the Superfund to further fund Government responsive action.

Mr. Chairman, that summarizes our statement. We would be happy to answer any questions.

[The prepared statement follows:]

STATEMENT OF HON. JOHN E. CHAPOTON, ASSISTANT SECRETARY (TAX POLICY), U.S. DEPARTMENT OF THE TREASURY

Mr. Chairman and members of the committee, I am pleased to be here today to present the Department of the Treasury's views on the taxing provisions of H.R. 5640, the Superfund Expansion and Protection Act of 1984. I want to emphasize the Administration's continuing commitment to protecting the public and the environment from the release or improper disposal of hazardous chemical substances. The President affirmed his commitment to these goals on July 11, 1984 in his transmission to Congress of the Fourteenth Annual Report of the Council on Environmental Quality.

We support the basic objective of H.R. 5640 to reauthorize the taxing provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). During the past three years the Treasury Department has been participating with other Administration agencies in an intensive review of CERCLA and related legislation to determine how best to fulfill the President's commitment to the public and the environment. Reauthorization of the taxing provisions of CERCLA before the current law expires in September 1985 is a top Administration priority but we believe it would be more appropriate to defer reauthorization and any refinement of the CERCLA legislation until that review is completed.

At the outset, I would like to emphasize that my comments on H.R. 5640 address only the taxing provisions ("Title V") of the bill. The Environmental Protection Agency ("EPA") has submitted a statement on Titles I through IV of the bill, which relate primarily to how funds deposited in the Hazardous Substance Response Trust Fund (i.e., the "Superfund") should be expended.

Title V of H.R. 5640: Amendments to the Excise Tax on Petroleum and Certain Chemicals; the Imposition of a Waste-End Tax; and the Repeal of the Post-Closure Tax and Trust Fund

BACKGROUND

CERCLA provides the Federal Government with the authority to clean up hazardous chemicals leaked into the environment, to pay for damages to natural resources caused by such chemicals, and to recover the costs of such cleanup and restoration from the parties responsible for releasing the hazardous substances. The response program is administered by the EPA and is financed by the Superfund.

CERCLA authorizes appropriations to the Superfund equal to $44 million per year for fiscal years 1981 to 1985. The Superfund is principally funded, however, by the excise taxes on crude oil and certain specified chemicals imposed by sections 4611 and 4661 of the Internal Revenue Code. Section 4611 of the Code imposes an excise tax of .79 cent a barrel on both domestic and imported crude oil received at a United States refinery, domestic crude oil used or exported before it is received at a United States refinery, and petroleum products entered into the United States for consumption, use, or warehousing. Section 4661 of the Code imposes an excise tax on 42 listed chemicals sold or used by the manufacturer, producer, or importer of the chemicals. These taxed chemicals are either themselves hazardous or are the basic chemical components of nearly all other major inorganic and organic hazardous wastes. The tax is assessed at rates ranging from .22 cent per ton to $4.87 per ton depending upon the chemical. The tax rates for the listed chemicals reflect a Congressional decision to allocate 65 percent of the tax burden to petrochemicals, 20 percent to inorganic chemicals, and 15 percent to petroleum. This allocation was based on the respective proportions of such substances found present in hazardous waste sites at the time of enactment of CERCLA. The rate of tax on any chemical, however, is limited to 2 percent of its wholesale price as of 1980.

CERCLA imposed upon those who generate, transport or dispose of wastes, the liability for damages caused by a release or threatened release of hazardous substances. Hazardous substances are defined to include those hazardous substances specified under various other environmental statutes as well as substances, as determined by EPA, which when released into the environment may present substantial danger to the public health or welfare or the environment. Responsible parties are strictly liable for the costs incurred by the Federal Government or a state government associated with removal and cleanup of hazardous waste releases, other necessary response costs, and damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction or loss.

Liability limits are fixed by statute. Generally, liability is limited to response costs plus $50 million. The liability limitations do not apply, however, if the release or threatened release is the result of willful misconduct or willful negligence or if the responsible person does not provide assistance and cooperation when requested by a public official. In addition, punitive damages up to three times the response costs incurred may be imposed if the responsible person fails without cause to provide remedial and removal action when ordered by the President.

CERCLA also established the Post-Closure Liability Trust Fund. The Post-Closure Liability Trust Fund is obligated to pay all costs arising out of a liability imposed by CERCLA with respect to a hazardous waste disposal facility after its closure, provided the facility has received a permit under Subtitle C of the Solid Waste Disposal Act, and complied with other regulatory requirements designed to protect against future releases of hazardous substances. Thus, if these prerequisites are satisfied, future liabilities arising from the operation of the facility are shifted from the responsible parties to the Federal Government. The Post-Closure Liability Trust Fund is funded with revenues collected under section 4681 of the Code, which imposes a tax on hazardous waste received at a qualified hazardous waste disposal facility. The tax is assessed at a flat rate of $2.13 per dry weight ton, and is imposed upon and collected from the owner or operator of the facility.

The authority to collect the taxes enacted by CERCLA including the tax supporting the Post-Closure Liability Trust Fund terminates on September 30, 1985.

DESCRIPTION OF TITLE V OF H.R. 5640

Section 501 of H.R. 5640 would increase the excise tax on domestic and imported crude oil and imported petroleum products from .79 cent a barrel to 4.5 cents a barrel. The tax would be extended through September 30, 1990.

Section 502 of H.R. 5640 would repeal the provisions of CERCLA that establish the Post-Closure Liability Trust Fund. Liability for certain damages from the release or threatened release of hazardous waste from waste sites after their closure would therefore remain with the responsible parties for such facilities. Taxes already collected from owners and operators of qualified hazardous waste disposal facilities under Code section 4681 would be refunded to such persons.

Effective January 1, 1987, section 503 of H.R. 5640 would impose a new waste-end tax on the disposal of certain hazardous substances. The amount assessed would vary from $5 to $30 per metric ton of waste, depending upon the amount of hazardous substances disposed and whether the disposition is by underground injection or otherwise. If the hazardous substances are disposed at a qualified facility, the owner or operator of the facility would be liable for the tax. However, if disposal were not at such a facility, the person disposing of the hazardous substance would be taxed. Unlike the current waste-end tax, the revenues generated by this waste-end tax would be added to the Superfund established by CERCLA.

Section 504 of H.R. 5640 would add certain chemicals to those taxed under Code section 4661 and delete others bringing the total number of feed-stock chemicals subject to the tax to 59. In addition, the tax per ton would range from .26 cent to $29.87 depending on the chemical manufactured, produced, or imported. The tax rates for each chemical generally were determined by applying the lower of 3 percent of the projected 1986 sales price for each substance or a predetermined cap equal to $29.87 per ton for organic substances and $14.94 per ton for inorganic substances. No attempt was made to achieve a predetermined allocation of the tax burden between the petrochemical, inorganic, and petroleum segments.

Section 505 of H.R. 5640 would authorize appropriations to the Superfund equal to $181 million per year for fiscal years 1986 and 1987, and appropriations equal to $256 million per year for fiscal years 1988, 1989, and 1990.

An amendment recommended to the Committee by the House Energy and Commerce Committee also would impose a flat 5 percent tax on the value of substances imported into the United States that are directly and substantially manufactured or produced from certain of the taxable chemicals listed in Code section 4661. The tax would be assessed against the importer or ultimate purchaser of such substances. If, however, the importer or ultimate purchaser could establish the amount of feed-stock chemicals used in the manufacture or production of the imported substance, the tax would be imposed at the rates specified under Code section 4661.

In summary, under this proposed taxing regimen the Superfund would be funded by revenues generated by increased taxes on crude oil and petroleum products, an increased feed-stock tax, a new waste-end tax, and by yearly appropriations from general revenues. The revenue impact of the provisions of H.R. 5640 is shown on the attached table.

DISCUSSION

The current feed-stock and waste-end taxes

The feed-stock tax enacted by CERCLA reflects the policy decision that Federal Government action taken to clean up and contain spills or threatened or actual releases of hazardous substances and the payment of damage claims when responsible parties are not known should be funded by the users of hazardous substances rather than by the general revenues. Although the feed-stock tax has been criticized on the grounds that the tax collected from any individual firm is not based upon that firm's actual experience with hazardous substances and provides at best a form of rough justice, the tax is premised upon the fact that there are environmental costs associated with the use of hazardous substances. Prior to 1981, these costs were not reflected in the price of the products made from such substances. By imposing a tax on the basic building materials used to make hazardous products and waste rather than on the waste and end products themselves, it was anticipated that the tax would be reflected in the price of the end products and in effect borne by all persons utilizing hazardous materials.

The chemicals currently subject to tax generally appear in the response sites now being investigated by EPA. Therefore, in the aggregate those taxpayers who produce, manufacturer, or import hazardous wastes appear to be funding the Superfund activities. Moreover, the Internal Revenue Service ("IRS") has not encountered substantial difficulties in administering the feed-stock tax.

The current waste-end tax was first levied on October 1, 1983 and is imposed only on the owners or operators of qualified hazardous waste disposal facilities. The tax is based upon the amount of hazardous waste deposited at the facility. Because the current waste-end tax was not imposed until October 1, 1983, the IRS has had little experience in administering this tax.

Revenues from the waste-end tax are used to fund the Post-Closure Liability Trust Fund. Because payment of the tax shifts liability for post-closure damages to the Federal Government, the tax payments can be equated with premium payments for post-closure Government liability insurance paid by such owners and operators. In the absence of such insurance, owners and operators of disposal facilities would be liable for post-closure claims inperpetuity. The release of liability provided by the Post-Closure Liability Trust Fund encourages compliance with EPA standards for waste treatment and fosters the development of new and the maintenance of old hazardous waste disposal facilities. At present the EPA is studying the impact that various state-imposed waste-end taxes have on waste management techniques and will submit its recommendations to the President on the use of waste-end taxes before year-end.

Proposed increased taxes on petroleum products and feed stocks

H.R. 5640 would increase the tax on crude oil and imported petroleum products nearly six-fold and would increase the tax on certain feed-stock chemicals three-to five-fold. In general, it is likely that a manufacturer would be able to pass on to its customers most of the proposed tax increase. The extent to which this can be done depends upon a number of factors, including how responsive production and consumption are to changes in prices. For example, other things equal, it will be easier for a firm to pass on the tax if no close substitutes for the taxed chemical exist and if that firm and other firms bearing the incidence of the tax dominate the market. Nevertheless, it is difficult to determine whether the tax will be passed along in a particular case as the tax is imposed upon a large number of chemicals whose production and consumption are characterized by a wide variety of market conditions. More information on the economic impact of these proposed taxes will be available from the Congressionally mandated studies currently being conducted by EPA and scheduled for completion before the end of this year.

The import tax recommended to this Committee by the Committee on Energy and Commerce is intended to prevent the feed-stock tax from discriminating against United States producers. While it will accomplish that objective, it should be noted that substances produced abroad that are not in themselves hazardous and are not used in the domestic production of hazardous chemicals or waste do not present a potential danger to our environment. Consequently, this provision cannot be justified on the basis that it taxes hazardous substances that pose a threat to our environment.

In addition to this conceptual problem, implementation of the tax as proposed presents serious administrative problems. Before the proposed import tax could be imposed, it would be necessary to identify the chemical components of imported substances and, in some cases, the processes employed to produce such substances. This might be beyond the administrative capabilities of the IRS as it would require constant chemical analysis of imported goods and factual investigations into foreign manufacturing processes. A simple but unlikely example illustrates the administrative difficulties. If table salt ($NaCl$) were imported, it would not be subject to tax if it were mined or extracted from sea water. The salt would be subject to tax, however, if it were produced by reacting sodium hydroxide ($NaOH$) with hydrochloric acid (HCl), substances subject to feed-stock tax. Under the recommended import tax, the IRS would have to determine whether imported salt was manufactured by reacting the chemicals or whether it was mined.

Proposed waste-end tax

In contrast to a feed-stock tax, a waste-end tax is a more direct route to taxing those persons potentially responsible for the environmental damage that requires future remedial action. A properly structured waste-end tax thus could be an important tool for encouraging sound waste management practices. Any waste-end tax, however, creates environmental concerns, as it may encourage disposal of hazardous substances in non-approval sites (i.e., "midnight dumping"). At present, the EPA is studying the impact that various state-imposed waste-end taxes have had on waste management techniques and will submit its findings to the President in the near future.

The Treasury Department is seriously concerned about the administrability of the waste-end tax embodied in H.R. 5640. The bill specifies that the tax will be paid by the owner or operator of a permitted disposal facility or by the party disposing of the hazardous substance other than at such a facility. EPA estimates that there are approximately 1,200 permitted facilities and several hundred thousand businesses that generate hazardous waste in small quantities, such as neighborhood gas stations and dry cleaners. Under the bill, any business that does not dispose of its waste in permitted waste disposal facilities, will be subject to the tax. This would require the IRS to monitor virtually every small business in order to verify compliance with the tax. It would not be practical for the IRS to monitor the waste disposal activities and techniques of every taxpayer likely to generate hazardous waste. If such monitoring is to be done, it should be done by either EPA or state regulatory authorities.

Proposed termination of the Post-Closure Liability Trust Fund and refund of tax

We agree in principle with shifting the burden of post-closure liabilities to those persons responsible for disposing of hazardous waste, as would occur under the proposed repeal of the Post-Closure Liability Trust Fund. Adequate private insurance, however, may not be available to cover the long-term liability of operators and owners of hazardous waste disposal facilities.

In March 1982, the Treasury Department issued a report which studied the feasibility of the substitution of private insurance for the current statutory scheme under which post-closure liabilities are assumed by the Post-Closure Liability Trust Fund. The Report noted that private insurance would have to meet the following standards in order to substitute for the coverage extended by the Post-Closure Liability Trust Fund. First, private insurance would have to be available for all qualifying hazardous waste sites at premiums sufficiently low to counteract "midnight dumping." Second, the private insurers would have to be willing to accept an uncertain and potentially unlimited exposure to liability as defined under CERCLA and any other law. Finally, private insurance would have to provide financial assurance for liability and for the monitoring and maintenance of such sites in perpetuity. The Report concluded that this type of comprehensive private insurance option is not feasible now or in the foreseeable future.

The Report did not address whether some sharing of liability between Federal Government and the private sector would be a viable alternative to the Post-Closure Liability Trust Fund. Further, the Report was based upon the private insurance market shortly after the enactment of CERCLA. The EPA study, however, scheduled for release shortly will address these issues. Again, we stress that action taken to modify and extend CERCLA should be postponed until the EPA report is issued.

As a final matter, H.R. 5640 would require the IRS to refund all taxes paid to the Post-Closure Liability Trust Fund. Such refunds may be justified on the grounds that the recipients are assuming the post-closure liabilities. In some cases, however, the refunds might constitute a windfall to those taxpayers who have passed the cost of the tax on to their customers. Further, the cost of administering the refund procedure may well exceed the revenues thus far generated by the tax. As an alternative if the Post-Closure Liability Trust Fund is repealed, the revenues could be transferred to the Superfund to further fund Government response activities.

This concludes my prepared remarks on this bill. I would be happy to respond to your questions.

SUMMARY EFFECT ON RECEIPTS OF H.R. 5640 (WITH AMENDMENTS RECOMMENDED BY ENERGY AND COMMERCE COMMITTEE) PROPOSED CONTINUATION AND EXPANSION OF ENVIRONMENTAL TRUST FUNDS

[In millions of dollars]

	Fiscal years								
	1984	1985	1986	1987	1988	1989	1990	1991	Total
Increase in excise tax receipts:									
Feedstock and imported derivatives:									
Chemicals	0	0	881	1,021	1,067	1,111	1,152	65	5,297
Oil	0	0	220	233	232	231	230	13	1,159
Imports (immediately derived)	0	0	57	59	59	59	59	3	296
Subtotal, feedstock plus imports	0	0	1,158	1,313	1,358	1,401	1,441	81	6,752
Waste end:									
Current post-closure	0	−18	0	0	0	0	0	0	−18
New waste end	0	0	0	161	232	232	232	13	870
Subtotal	0	−18	0	161	232	232	232	13	852
Total, effect on environmental trust fund receipts	0	−18	1,158	1,474	1,590	1,633	1,673	94	7,604

SUMMARY EFFECT ON RECEIPTS OF H.R. 5640 (WITH AMENDMENTS RECOMMENDED BY ENERGY AND COMMERCE COMMITTEE) PROPOSED CONTINUATION AND EXPANSION OF ENVIRONMENTAL TRUST FUNDS—Continued

[In millions of dollars]

	Fiscal years								
	1984	1985	1986	1987	1988	1989	1990	1991	Total
Income tax offset	0	4	−289	−368	−398	−409	−419	−23	−1,902
Net receipts effect	0	−14	869	1,106	1,192	1,224	1,254	71	5,702

Office of the Secretary of the Treasury, Office of Tax Analysis, July 24, 1984.

Mr. Gibbons. Thank you, Mr. Chapoton.

We have a vote on on the floor, and perhaps—are there questions of Mr. Chapoton? Mr. Moore?

We are going to go until we get about 5 minutes out on the second vote.

Mr. Moore. The joint committee pamphlet describes the factors considered when the current feedstock was adopted.

I would like to know whether or not your staff can work with the staff at EPA to help EPA advise the Ways and Means staff as to whether the feedstocks currently listed in H.R. 5640 and the additional feedstocks they may identify would satisfy each of the criteria identified in the committee pamphlet.

Mr. Chapoton. We will, and we would like to do that. The gut question is the rate of tax applied to each of the substances. We have and will continue to work with EPA to attempt to establish the correct rate.

Mr. Moore. In the existing law on the postclosure liability fund, which is to be done away with in this bill, the tax is based on a dry-weight basis. The bill comes to us now with a waste end tax on a wet-weight basis, which particularly causes problems for deep well injection storage of waste, which is 90 percent water.

Do you have any idea how that tax should be drawn?

Mr. Chapoton. This concern has been expressed to us. It is really saying the more you dilute your waste, the higher your tax would be, and I think that is a valid point. We will look at that.

Mr. Moore. If your staff has any information, we would appreciate it being submitted to us.

Because this committee has jurisdiction over trade as well as the tax consequences here, two issues have been mentioned by members of the committee during the course of the hearing that concern us greatly.

The first is the import fee. You have addressed the problems with the administration of that, but we have the problem of what to do about the situation where the taxed feedstock goes into plastic manufactured in this country, but the plastic comes in from a foreign country without the tax, and therefore, we are at a competitive disadvantage.

The second aspect is the exportation of metals and chemicals whereupon, under the bill, we would place a tax on that, even though it is exported, and cannot wind up in a hazardous waste site in this country.

Do you now have information as to how much of a foreign trade disincentive this is or how much of a problem it creates in maintaining our competitiveness, or could you develop any information on that?

Mr. CHAPOTON. We could see if we could develop any. I think you probably could quantify that sort of thing. I think we have to recognize, as we incur costs to clean up our environment, generally it has these impacts you are talking about.

I think that is just a concern—a problem we have to live with, Mr. Moore. We are concerned. I have raised the administrative problems about the import tax, but we are also worried about it conceptually, whether an attempt to equalize treatment for imports, when in fact the purpose of the tax is to clean up our environment by putting the costs on hazardous substances—I think we would express some concerns about the import fee from a conceptual standpoint as well.

These are problems that are going to result from any such effort as this, that do now result certainly from a feed stock tax on hazardous substances. I think we could attempt to quantify them, but we will have to live with some of them.

Mr. WILLIAM THOMAS. Would the gentleman yield?

Mr. MOORE. I yield to the gentleman.

Mr. WILLIAM THOMAS. In terms of the examination between Treasury and EPA on the tax rates, what timeframe are we talking about?

Mr. CHAPOTON. This fall. We are not talking about in the next 2 or 3 weeks.

Mr. WILLIAM THOMAS. Are you talking about an examination of——

Mr. CHAPOTON. We are positively talking about this fall. The reports will be completed this fall.

Mr. WILLIAM THOMAS. Are you talking about an internal relationship between chemicals, some are taxed at a lesser rate per ton than others, an internal comparison of the appropriateness of the tax, or would you go to evaluation of those items that are on the list as to whether or not they should be taxed, and at what rate?

Mr. CHAPOTON. I think primarily that would be EPA's call, but I assume it would go to both questions.

Mr. WILLIAM THOMAS. One of my concerns is that I think there are a number of items that ought to be taxed, but to tax the entire production of an industry at a certain level when only a portion of that product is used in the production of hazardous materials or meets any of the criteria seems to me unfair.

If you are looking for revenue, it is an appropriate way to go. If you are looking for a reasonable and appropriate tax to apply on a fair-share basis, I think this list in the current tax rate misses the mark by a wide margin.

Mr. CHAPOTON. I recognize those problems. I think Mr. Thomas probably can address the conceptual basis for the trust fund generally, but the idea is that you cannot tag the specific blame on the party doing the damage and you are just imposing a tax on a level funding basis that does simply tax the use of hazardous substances.

Obviously, there are going to be some inequities when you attempt to do it.

Mr. **WILLIAM THOMAS**. Thank you.

I thank the gentleman for yielding.

Mr. **GIBBONS**. Thank you, Mr. Chapoton. We appreciate your coming this morning, and we will be working with you as the days progress. We will recess for a vote and when we come back, we will take Mr. Wyden and then the Environmental Protection Agency, and then go into our panels.

[Recess.]

Mr. **GIBBONS**. Our next witness is Mr. Wyden.

Congressman Wyden, we welcome you, and you may proceed as you wish.

STATEMENT OF HON. RON WYDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. **WYDEN**. Thank you very much, Mr. Chairman. I also appreciate your letting me go out of order, Mr. Chairman.

Mr. Chairman, I would like to turn very briefly to the question of the waste end tax. I think this is a particularly important section of the bill, because for the first time, it would give corporate managers tangible financial rewards for looking at alternatives to land disposal of hazardous waste.

I think this is particularly important in light of the revelations last week that it seems that even the qualified land disposal sites are leaking. This strengthens the argument that what we should be trying to do is recycle and treat as much hazardous waste as possible.

By introducing a marketplace component to existing Superfund legislation, we can keep the positive features of existing law and change those which in many ways make today's Superfund Program a textbook case of distorted economic incentives.

At present, no matter how we look at it with the feedstock tax alone, there is no connection to the actual amount of waste a company produces nor to the quality of waste management.

With a waste end tax, those who produce or dispose of less waste pay less taxes. Therefore, we move the national system of waste disposal in a direction that diminishes the need for the Superfund by cutting down the amount of waste generated.

I think the bottom line, Mr. Chairman, is that we know that a regulatory approach will work.

The question is, will a regulatory program plus some economic incentives work even better, and I think it is our judgment, Mr. Chairman, that it will.

Very briefly, Mr. Chairman, I would like to turn to just a couple of the points that Mr. Chapoton referred to earlier on behalf of the IRS.

The first point I would like to address is the issue of administrative feasibility of a waste end tax. We understand that a workable waste end tax has to exhibit clarity and simplicity. By the same token, to be effective, tax rates should be great enough to make land disposal economically unattractive. We believe the approach contained in H.R. 5640 meets the test of clarity and simplicity.

There is no hocus-pocus about who is taxed and who isn't.

Those who own or operate a land disposal facility will pay the tax at the point of disposal. Wastes placed in storage for more than 1 year will also be taxed.

For land-filled hazardous waste, the tax rate will be higher for the disposal or storage of the most hazardous waste than it will for less hazardous waste. This degree-of-hazard ranking is accomplished using the reportable quantity system created under the 1980 law.

Therefore, I believe H.R. 5640's definition of the taxable substances and activities is clear and straightforward. And the waste end tax won't be creating a mammoth problem for administrators.

Existing RCRA recordkeeping requirements are sufficient for the administration of H.R. 5640's waste end tax. The uniform manifest system will be used to assess volumes for the taxing of off-site waste, and the RCRA operating log, with some modifications, will provide the basis for taxing onsite waste.

The last point that I want to address, Mr. Chairman, that I felt was central in Mr. Chapoton's earlier testimony, was this issue of midnight dumping, and underreporting of hazardous waste.

It is my view that rather than exacerbate the problem, a waste end tax could prove to be an invaluable tool for cracking down on midnight dumpers and the underreporters of hazardous waste.

We all understand that these problems are not unique to a waste end tax. In fact, these problems are part and parcel of any hazardous waste regulatory program. The real issue is will a waste end tax make the problems of midnight dumping and underreporting worse than they now are.

In looking at this issue, we have to look at it in two parts. First, will those who currently comply with RCRA stop complying as a result of a waste end tax? I believe not.

Firms that are currently complying with the law will not be persuaded to suddenly ignore the law, especially when faced with the new threats of tax penalties and tax audits. As evidence, consider the State of New York's experience with a waste end tax.

A December 1983 report by the New York Department of Environmental Conservation finds that: "To date, generators who manifested their waste have demonstrated excellent compliance with the payment of the Superfund assessments."

The second part of the question of underreporting or midnight dumping is whether those currently violating RCRA will be persuaded to comply with RCRA and with a waste end tax. At present, EPA has no idea how large of a problem we are talking about in this category.

In my view, Mr. Chairman, a waste end tax has the potential to bring present violators of RCRA into the system. For, a waste end tax, midnight dumpers would now be faced with violating both an environmental statute and the Internal Revenue Code of the United States.

So, the point of all this, Mr. Chairman, is that we take away no enforcement tools against the midnight dumper, but we now add an extra statute so that those who are violating laws and engaging in midnight dumping would be found guilty of two violations, rather than just one.

I think the present penalties for illegal dumping of $50,000 a day and 2 years in jail per violation now supplemented with new criminal tax fraud and tax evasion penalties, give us more tools to deal with the problem, rather than less, and complement the strong enforcement efforts that all of us understand are important.

The last point that I would make, Mr. Chairman, is that we have a difference of opinion between the IRS and the EPA on this issue of whether States with waste end taxes have had problems with increased midnight dumping.

The EPA issued a study in 1984, and I quote here, "The analysis did not show any difference in illegal disposal between the States with and those without a waste end tax." So I think that is the heart of it.

We know the regulatory approach to controlling hazardous waste will work. We think a regulatory approach plus some good economic incentives can work better, and that it is high time we gave the corporate managers of this country a financial incentive to recycle the waste rather than give all the incentives just for land disposal.

Thank you, Mr. Chairman.

[The prepared statement follows:]

STATEMENT OF HON. RON WYDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. Chairman, let me start by expressing my strong support for the Superfund reauthorization embodied in H.R. 5640. It is a product of consensus and compromise. It also provides the funds, the direction and the tools to get on with the solution to America's most pressing public health threat. Chairman Florio, Chairman Dingell and Congressman Lent preserve our praise for their diligence in putting together legislation we can all feel proud to support.

We are before your committee today to present our views on why a waste-end tax should be included in legislation reauthorizing the Superfund.

The first and foremost of any financing mechanism for Superfund must be to ensure a reliable source of revenue to support the necessary clean-up activities. We believe H.R. 5640's integrated feedstock/waste-end tax will satisfy this primary goal.

By addition, such an integrated approach provides an added bonus: It would for the first time put incentives in the marketplace for recycling hazardous waste and for adopting methods to avoid producing it in the first place. It would give corporate managers tangible, financial rewards for looking at alternatives than land disposal of hazardous waste.

By introducing such a marketplace component to existing Superfund legislation, we can keep the positive features of existing law and change those which in many ways make today's Superfund a textbook case of distorted economic incentives.

At present, no matter how you look at it, with the feedstock tax alone, there is no connection to the actual amount of waste a company produces, nor to the quality of waste management.

With a waste-end tax, those who produce or dispose of less waste pay less taxes. Therefore we move the national system in a direction that diminishes the need for the Superfund by cutting down the amount of waste generated.

Of course, strong regulatory approaches embodied in the House-passed RCRA amendments also move in this direction. But we believe a strong regulatory program which is complemented by a bottom-line economic incentive to produce less waste will produce even better results.

I want to discuss some specific issues that must be examined when any financing system is considered. Let me turn first to the administrative feasibility of a waste-end tax.

First and foremost, a workable waste-end tax must exhibit clarity and simplicity. By the same token, to be effective, tax rates should be great enough to make land disposal economically unattractive. We believe the approach contained in H.R. 5640 meets the test of clarity and simplicity.

There is no hocus-pocus about who is taxed and who isn't.

Those who own or operate a land disposal facility will pay the tax at the point of disposal. Wastes placed in storage for more than one year will also be taxed. For landfilled hazardous waste, the tax rate will be higher for the disposal or storage of the most hazardous waste than it will be for less hazardous waste. This degree-of-hazard ranking is accomplished using the "reportable quantity" system created under the 1980 law.

Thus, H.R. 5640's definition of the taxable substances and activities is clear and straightforward.

And the waste-end tax won't be creating a mammoth problem for administrators.

Existing RCRA recordkeeping requirements are sufficient for the administration of H.R. 5640's waste-end tax. The uniform manifest system will be used to assess volumes for the taxing of off-site waste, and the RCRA operating log, with some modifications, will provide the basis for taxing on-site waste.

In addition to clarity and simplicity, a waste-end tax must be collectable.

Clearly, under a waste-end tax the pool of potential taxpayers is larger than the relative handful of companies that currently pay the feedstock tax.

The Environmental Protection Agency's 1981 data indicates that there are about 5,000 qualified hazardous waste disposal facilities nationwide. In contrast with some 100 million individuals and businesses from which the IRS currently collects taxes, this suggests that there will not be an unworkable number of firms liable to a waste-end tax.

Next, any financing system must be evaluated as to how it will affect the practice of midnight dumping and underreporting of hazardous waste. Mr. Chairman, rather than exacerbate the problem, we believe a waste-end tax will prove to be an invaluable tool for cracking down on midnight dumpers and underreporters of hazardous waste.

One point up front: The problems of midnight dumping and underreporting of hazardous waste are not unique to a waste-end tax. Indeed, these problems are part and parcel of the hazardous waste regulatory program.

The real question is: Will a waste-end tax make the problems of midnight dumping and underreporting of hazardous waste worse than they now are?

The question has to be examined in two parts: First, will those who currently comply with RCRA stop complying as a result of a waste-end tax?

We believe not. Firms that are currently complying with the law will not be persuaded to suddenly ignore the law, especially when faced with the new threats of tax penalties and tax audits. As evidence, consider the State of New York's experience with a waste-end tax.

A December 1983 report by the New York Department of Environmental Conservation finds that: "To date, generators who manifested their waste have demonstrated excellent compliance with the payment of the superfund assessments".

The second part of the question is whether those currently violating RCRA will be persuaded to comply with RCRA and with a waste-end tax.

At present, EPA has no idea how large of a problem we are talking about in this category.

In my view, Mr. Chairman, a waste-end tax has the potential to bring present violators of RCRA into the system. With a waste-end tax, midnight dumpers would now be faced with violating both an environmental law and the Internal Revenue Code of the United States—certainly a more chilling prospect to some.

For example, Michigan's environmental enforcement supervisor, William M. Murphy, in a November 1983 article for the FBI Law Enforcement Bulletin, makes the point that many of our citizens seem to believe that environmental statutes should be enforced on a "gentleman-to-gentleman basis", he states that: "The philosophy still quite prevalent in the criminal justice system, business community, political arena, and engineering and scientific circles is that environmental laws should not be enforced in the same manner as 'regular' criminal law classifications."

Inevitably, some producers of hazardous waste will choose to operate outside the law—as they do now—regardless of the existence of a waste-end tax. To identify these midnight dumpers, strong enforcement efforts are needed, period.

In fact, a waste-end tax will provide enforcement officials with another tool to obtain convictions: failure to pay taxes.

The present penalties for illegal dumping of $50,000 a day and two years in jail per violation, would now be supplemented with new criminal tax fraud and tax evasion penalties.

Chairman Dingell and Chairman Florio have been instrumental in highlighting the increasing attraction of organized crime to the illegal waste disposal business.

To combat this growing influence, we certainly cannot ignore our long history—from Al Capone onwards—of obtaining successful convictions of organized crime on the basis of violations of income tax and other tax laws. Indeed, all too often in organized crime, this is the only charge prosecutors can make stick.

Finally, Mr. Chairman, we have a January, 1984 EPA study on whether states with waste-end taxes experienced increased midnight dumping. In the words of the report: "The analysis did not show any difference in illegal disposal between the states with and those without a waste-end tax."

Mr. Chairman, in H.R. 5640, we have crafted an integrated feedstock/waste-end tax that will provide significant advantages for our national hazardous waste disposal system. To keep it simple, it has been crafted in accordance with existing definitions and recordkeeping requirements already present under the present Superfund and RCRA laws.

It will produce a bedrock of revenue for the Superfund and also provide the economic incentives needed to move business decisions towards environmentally preferable waste management practices. We can do this with the existing system of administering Superfund and RCRA. We can enhance our capability for prosecuting RCRA violators. And finally, we can do this without exacerbating midnight dumping and underreporting.

In short, the waste-end tax produces many plusses and few minuses. We hope you agree.

Thank you again for letting us have the time to present our views.

Mr. GIBBONS. Thank you, Mr. Wyden. I was in your State a few weeks ago, and I am very impressed with the way Oregon keeps itself clean.

I wish you would tell the appropriate officials out there that it made an impression on me and on others who were with me.

Mr. WYDEN. I want to say, Mr. Chairman. how much we appreciated your coming. Oregonians are going to be talking about the visit for some time, and your help with trade matters is very much appreciated in our State.

Mr. GIBBONS. Are there questions?

Mr. JACOBS. You said they are going to be talking about this for a long time. What are they going to be saying?

Mr. WYDEN. I may not be able to mention all of it, but there will be many positive things.

Mr. GIBBONS. My wife was there, and it is OK. Any other questions?

Mr. WYDEN. Thank you very much, Mr. Chairman.

Mr. GIBBONS. Our next witness is from the Environmental Protection Agency, Mr. Lee M. Thomas, Assistant Administrator for Solid Waste and Emergency Response.

Mr. Thomas, we welcome you, and you may proceed as you wish. I notice you have a number of people accompanying you. Would you introduce them for the record?

STATEMENT OF LEE M. THOMAS, ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY A. JAMES BARNES, GENERAL COUNSEL; WILLIAM HEDEMAN, DIRECTOR, OFFICE OF EMERGENCY AND REMEDIAL RESPONSE; GENE LUCERO, DIRECTOR, OFFICE OF WASTE PROGRAMS ENFORCEMENT; AND JOHN SKINNER, DIRECTOR, OFFICE OF SOLID WASTE

Mr. LEE THOMAS. Thank you, Mr. Chairman.

I have with me several individuals who I think may be able to assist the committee when you get into questions about the detail of the program. On my far left is James Barnes, General Counsel with EPA; next to him, Bill Hedeman, Director of the Superfund

Program Office; Gene Lucero, Director of our Hazardous Waste Enforcement Office; and John Skinner, Director of our Hazardous Waste Regulatory Office, the RCRA Program Office.

I am the Assistant Administrator of EPA, who is responsible for managing the Superfund and the RCRA Program. I have submitted my testimony, and what I would like to do is summarize and review that testimony and point out highlights as opposed to reading it.

Mr. GIBBONS. Your entire statement will appear in the record.

Mr. LEE THOMAS. I have charts on the right that I would like to use as I review several things.

Mr. GIBBONS. Are they on your testimony?

Mr. LEE THOMAS. They are attached to that testimony, Mr. Chairman.

First, I would like to talk to you about the current status of the Superfund Program and the implications for the future of maintaining the momentum that we think we have built into that program as far as cleaning up hazardous waste sites.

I would like to try to set the record straight as to exactly where we are in identifying and cleaning up uncontrolled hazardous waste sites. Then I would like to talk about H.R. 5640 in two respects, the programmatic implications for the Superfund Program and the cost implications.

Mr. Chapoton has talked about the revenue aspects, so I will only touch on that in the context of the costs we project from H.R. 5640.

Turning to the current Superfund Program, which I think gives you a context to think about H.R. 5640, the first major responsibility we have is to identify the number of uncontrolled hazardous waste sites in this country that may need action, potential sites.

So far we have identified over 18,000 potential sites that may need action, and we have projected that may grow to 22,000 or so.

You have heard the figure 22,000. That is where it comes from. We use the figure that there are a potential 22,000 sites that may need to be looked at. We have already looked at over 9,000 of those sites. That is done by regional offices along with State personnel.

We find about one in four of those sites in fact is a hazardous waste site that needs an investigation. The remainder of them are not. They got into our inventory from a variety of double and triple reporting mechanisms. We have been in the field with a field investigation at nearly 3,000 sites.

Those are the sites that are hazardous waste sites where we are trying to determine what is the extent of the problem; what are the hazardous substances there; do they present an immediate or substantial threat; do they present a chronic problem; should we deal with them either through our emergency authorities or through our remedial authorities because of the chronic problem they present?

Mr. GIBBONS. So, the top line is the total number of sites you have looked at, is that right?

Mr. LEE THOMAS. The top line represents the total inventory of sites that we have got to take a look at. The solid part of that top line is the nearly 8,000 that we have looked at with projections that that may reach 22,000 sites.

The bottom line is, of those we look at, about one in four represents a hazardous waste site, so the bottom line is the one in four. It shows the ones we have currently looked at, which is close to 3,000 now, where we have done a field investigation with sampling and analysis.

We project that may reach 7,000 that will require a field investigation. Our intent is to try to accomplish that task in the next 2 years, to complete the review of all the remaining sites complete the field investigation.

That objective we have established is consistent with the objective that is established in H.R. 5640. You will find that they talk in terms of the same 2-year period. What we are trying to do is once and for all establish the basic inventory of work that needs to be completed under the Superfund Program.

Mr. GIBBONS. So by the end of fiscal year 1986——

Mr. LEE THOMAS. For fiscal year 1986, we are projecting as an objective that we will have assessed 22,000 and that we will have gone onsite to the 7,000 that are potential hazardous waste sites that need a full field investigation to determine the scope of the problem.

Now, once we have been on site as we have at those 3,000, what are the authorities we have to deal with the problem? We have two broad authorities. One is the authority to move if it presents an emergency situation. That is, if it is an immediate threat to the population we have the authority to move out and take action at that site. If it is a chronic threat, we go through a determination of which ones of these sites are priority sites and should receive priority attention under the Superfund Program. You often hear about our national priority list. Under the law, we are supposed to identify priority sites, and we are supposed to update that list every year until we have completed that process.

So first, let's look at what have we done with this emergency response authority how many sites have we dealt with? We have dealt with 400 sites where we have found that there was an immediate threat, whether it was a barrel site with drums leaking into drinking water, whether it was an immediate explosion threat, air contamination, or whatever. We have completed action at over 300 of those sites. If you want to talk in terms of how many sites we have been to and cleaned up, that is a big figure. We have completed removal action at over 300, and 150 were cleaned up, walked away from. The remainder were stabilized until we could go forward with the long-term remedial action.

Where are we on the long-term cleanup program of those sites identified as priority sites? Right now, we have 546 sites on our national priority list. There are six additional sites that were on earlier lists that have been taken off. So 552 sites have been identified as priority sites since the program started. We update the list annually. We estimate that possibly 1,400 to 2,200 sites will end up on that national priority list. That is the figure you often hear about.

The first phase of a priority list project or site is the detailed investigation needed to determine what is the proper cleanup remedy. Chronic problems are involved; more than half of these sites have subsurface groundwater contamination. These are detailed investigations, engineering investigations in the field. On average they take 18 months, particularly those where we have got groundwater contamination—to find out the full extent of the contamination in the groundwater. You are talking about that kind of time. That is the first phase of a cleanup project on a priority site.

As you can see, there is an increase in the number of sites where we have started that cleanup action, that detailed engineering investigation in the field. By the end of this year, we will have initiated action at 300 of those priority sites with a detailed engineering study needed to begin cleanup. The bottom line represents the portion of those sites that is being done by private companies. One of the things to bear in mind is that under the Superfund Program, we not only use the funds out of the Superfund, we also have broad liability provisions to try to get potentially responsible parties to take action rather than using the Superfund, and in fact that has been accomplished at nearly 100 sites, 100 actions.

We have in fact gotten cleanup of nearly $300 million from private parties at sites in addition to the Superfund money that we have used to clean up sites. So the first chart as you can see shows nearly 300 of the sites where we have the engineering work started or underway or completed.

The next stage of the program, once you have completed the engineering work and know how to clean the site up, is the design. You are talking about a construction program on average from the engineering start to the finish, of putting your construction remedy in place is 2½ to 3 years so you have got a pipeline effect. As you crank it up in the beginning, 2 or 3 years later you will see the construction phase pop up, and that is what you see here. By the end of this year 100 sites of the priority sites will be in or through the design phase.

The next chart shows the construction phase—same kind of increases going on, dramatic increases in the outyears as far as the number of sites being cleaned up, actual construction underway at over 100 sites by the end of this year with construction beginning at over 200 at the end of next year.

If you look at our appropriation over the next 2 year, the appropriation went from $210 million for the Superfund in fiscal year 1983 to a $620 million appropriation in the next year, reflecting what is happening with the construction program. It is increasing rapidly.

In summary, on the last chart you will see the national priority list sites, the ones that you generally hear about, the 500, and in this case 52 sites. Action is underway in one form or another at the majority of those sites. A key action that most people are looking for is whether we actually begin the detailed investigation at that site that will lead to cleanup.

As of June 30, you see 242 where we had that action underway. Our projections are that by the end of this year we will have that action underway at 300 of those sites. You see 100 sites where we have gone in with an immediate threat, 73 of the sites where we have responsible parties taking action under a formal agreement, actual construction underway at 55—it will be nearly 100 at the end of the year—and the six sites taken off the priority list. Don't judge the program by how many sites get taken off the list.

A lot of these won't get taken off this list for many, many years to come. We don't want to take them off the list until we have completed the monitoring on the projects to determine they are successful. Many of these projects may take 15 to 20 years to complete because of the groundwater contamination associated with them.

So that is where we are with this program. It is rapidly increasing both in terms of budget, in terms of momentum, in terms of personnel. Leading into reauthorization for the Superfund Program, the administration is strongly committed to continuing the momentum that we have established in the program.

The President has come out strongly for reauthorization. We want to maintain the momentum, maintain the focus of this program on completing the job of cleaning up uncontrolled hazardous waste sites as quickly and as effectively as possible.

That leads me then to a discussion of H.R. 5640. H.R. 5640 is the Congress' effort at this point in the House to deal with reauthorization of Superfund and I commend the Congress for initiating that process. Both in the Senate and on the House side you have begun what I think is an extremely difficult job, and that is looking at a complex emotional program, the Superfund Program and determining how best to continue that program.

We are all committed to continuing it. What I would like to talk with you about is some of the things in H.R. 5640 which I hope in your deliberations you may consider modifying, because I think they may not have a positive impact on the program and could possibly have a negative impact on it.

First—and I only highlight some of the major provisions of the bill—the first major provision I would like to talk about is the inclusion of mandatory schedules. The bill mandates a certain level of work be done in the program. It talks in terms of how many of the engineering studies, the RIF's, remedial investigation feasibility studies, will be initiated in any year. It talks in terms of a minimum number of construction programs. When we cost that out, it comes to approximately $7 billion over the 5-year program.

Bear in mind that you will pick up in the second 5 years of this program a substantial portion of the cost of what you start in the first 5 years, because in the fourth and fifth year of that mandatory schedule, the number of new starts increases dramatically. It goes from 200 to 275 to 375. The construction costs on those projects will come in your second 5 years.

Mr. Gibbons. The second 5 years from when?

Mr. Lee Thomas. From when this reauthorization ends and you are looking at reauthorization again.

Mr. Gibbons. Tell us what year. 1987?

Mr. Lee Thomas. 1990.

Mr. Gibbons. I don't have any trouble with that, but I do have trouble with trying to figure out where we are in this program. I am not as familiar with it, of course, as you are.

Mr. Lee Thomas. Right now we are looking at completing the fourth year going into the fifth year of the current Superfund Program with an authorization of $1.6 billion over that 5-year period of time, which we project will be fully needed and fully used during that 5-year period of time. This bill is looking at authorizing $9 billion to continue that program through 1990, and my projections over here on the right are if you meet the mandatory schedules incorporated in that bill, that portion of the bill will cost you $7 billion to complete during that 5-year period of time.

The point I was making is there will be work beyond that 5-year period of time, so when you think in terms of what you are putting into mandatory schedules for 5 years, because of this being a construction program, it has significant implications for what the costs are going to be when you come up for reauthorization again. You are tying in the cost into the future, but let's concentrate on this 5-year reauthorization period that H.R. 5640 talks about.

Seven billion—included in that figure is the cost of meeting those schedules. It also includes a State entitlement program that H.R. 5640 incorporates. It shifts the responsibility for operation and maintenance at Superfund sites from a 90 to 10 percent split for the first year on a project and then a 100-percent State share to a perpetual 90 to 10 Federal/State share at a site. At many of these sites the operation and maintenance will continue for a number of years. As a matter of fact, at a number of these sites the operation and maintenance will in fact be for a drinking water treatment system and may continue as long as that drinking water system is in place.

What this bill does is establish as a part of the program that the States will be entitled to that 90 percent Federal share for as long as operation and maintenance is required. Projections are that will grow substantially as the number of sites grow. Additionally, if it is interepreted that we have to set aside the funds required for that operation and maintenance initially, when we put the construction remedy in place, it will substantially decrease the amount of money that we will have available to start new projects.

During the 5 years, there is a potential for $1.6 billion being set aside for the operation and maintenance portion of that entitlement. So the $7 billion is the cleanup part of the program with this new State operation and maintenance entitlement component.

The next major component of the bill——

Mr. MOORE. Mr. Chairman, I apologize for interrupting, but I am getting confused with the figures. Is the $1.6 billion added to the $7 billion?

Mr. LEE THOMAS. $1.6 billion is the current Superfund authorization that expires at the end of next year. The $7 billion is totally the cost of the new program, just the cleanup part of the new program.

Mr. MOORE. How much of the new program is overlapping what you are doing now? Are you telling us you need the $1.6 billion again for 5 years plus the $7 billion?

Mr. LEE THOMAS. That is correct; $1.6 billion will be totally obligated by the end of the year. That is the current Superfund Program. All I am talking about is at the end of that period when this legislation takes effect, H.R. 5640, how much money will be required to run this program.

Mr. MOORE. That is all I am asking. What you are going to need for the next 5 years.

Mr. LEE THOMAS. According to this, our cost estimates on H.R. 5640, the estimated cost of that program is going to be $13.2 billion.

Mr. MOORE. That is a new figure now.

Mr. **Lee Thomas**. Yes.

Mr. **Gibbons**. Now let me come back. Give me that figure again. Thirteen point——

Mr. **Lee Thomas**. If you look at the chart on the right, what I have tried to do——

Mr. **Conable**. Perhaps it would help if you would tell us if we did nothing to extend the program, but just did what is already on the plate, how much would that cost and then how much will be added by the new bill? Can you do that?

Mr. **Lee Thomas**. It would be difficult. If you continue the program at its current pace but added in nothing new, how much would it cost——

Mr. **Conable**. You move into the construction phase, now that you have identified these various problem areas, what would it cost you to cleanup that under the existing law assuming that you got the money?

Mr. **Lee Thomas**. My projection is that during that 5-year period, if we ran the program at the current pace, that is the construction program at the pace I have just layed out, it would cost about $5 billion.

Mr. **Conable**. So then the additional amount of cost that you mentioned up to the $13 billion is what would result from the expansion of the program to include other obligations not currently required by the law; is that correct?

Mr. **Lee Thomas**. That is correct. Other obligations, new requirements in H.R. 5640.

Mr. **Moore**. And that is where the $7 billion figure comes in, seven plus the five?

Mr. **Lee Thomas**. No, sir, let me just get directly to the $7 billion.

Mr. **Moore**. Start from scratch and just lay it out. I can't see the chart. The print is so small. There are 15 different colors there.

Mr. **Lee Thomas**. If you look at the new bill, it has a cleanup schedule as to how many sites we are supposed to clean up each year, how many we start, and how many we clean up. When we cost that out for 5 years, it is $7 billion. That is—the reason it is more than the $5 billion I just projected for you, which is our current program, is because it calls for us to clean up more sites than we currently are cleaning up. That presents a whole series of problems. But that is what it calls for, and that is what it would cost.

Additionally, it includes the new expenses to be borne under this bill, which are not currently borne by the fund. The operation and maintenance component, which is currently picked up by the States, would be picked up under this fund. So the $7 billion here corresponds to the $5 billion here. These two correspond—$2 billion more because of additional sites to be cleaned up that are mandated and costs to be borne that are mandated.

These additional costs are the new things in H.R. 5640 over and above the current Superfund Program that would be brought into the Superfund Program. These are new added components of the program.

Mr. **Moore**. Why don't you read those off.

Mr. **Lee Thomas**. A major component of H.R. 5640 says that we will now have response authority for responding to leaks from underground storage tanks of petroleum products, or any other petroleum product leaks that present any health threat. Our projection is that over 5 years that will cost $3.2 billion. Bear in mind that there are nearly 3 million underground storage tanks, by our estimate, that have these petroleum products.

Mr. GIBBONS. Tanks in filling stations?

Mr. LEE THOMAS. That is what they are: filling station tanks, farm tanks, taxicab dispatcher tanks, anybody that has gasoline or petroleum products in an underground tank. This goes beyond underground and talks about aboveground tanks, as well, if there is a spill.

Mr. GIBBONS. Before you get away from that, why shouldn't the person that has a leak in the tank fix it? Why do we have to fix it?

Mr. LEE THOMAS. They should. The person who has the leak in the tank should fix it. If you can't identify the responsible party—in other words, if you have got contamination and you can't determine what tank it came from or where it came from, then there is potential for your needing money to clean it up yourself. If the person who has the tank is responsible for fixing it, we need the enforcement personnel to deal with them to ensure that it is cleaned up, and cleaned up properly.

Mr. GIBBONS. So they are going to pay for it where we can identify the polluter?

Mr. LEE THOMAS. That is correct.

The reason this figure is so big is because you are talking about such a massive increase in responsibility. I was talking about the potential of 22,000 uncontrolled hazardous waste sites, which is what we are dealing with now.

Underground tanks, you are talking about the potential of looking at a universe of 3 million tanks, and within that, how many are potentially leaking? This bill says we will do that.

It also sets up a regulatory program for underground storage tanks—not to be funded here, so I don't have those costs here. That would have to come out of a general appropriation with a separate appropriation. But it sets up a regulatory program, as well.

It has many other provisions. It has mandatory cleanup standards that say we will clean up to the standard established under another environmental statute when we are cleaning up a site.

I understand the motivation behind the members who would like to incorporate that provision in the law. The "how clean is clean" issue has been the most difficult issue within EPA. We use environmental standards as the basic standard for cleanup, but there are at least five reasons that oftentimes you don't want to meet that standard.

Some occasions you find it is not technically possible to clean up to a standard established by some other environmental statute at a particular site. Sometimes you find you will create more environmental damage by trying to clean up to some other standard than if you left it at the standard that it was. On other occasions you may find that you will expend too much money at a site to meet that standard for the benefit you will get, as far as public health and the environment is concerned.

There are a variety of reasons that you don't want that mandatory provision there. You need some flexibility. We estimate that that has the potential of costing over 5 years $1.1 billion more, and

I think that is probably a conservative figure. It is very hard to make assumptions on what these things will cost us until we get into them. There are other potential costs in there. It ties in.

One of the points made earlier was the State portion of this program. The States do have major concerns about how they are going to raise the revenue to support their part of this program. This bill gives dramatic relief to the States. As I indicated, it basically sets up a State entitlement program. As long as a site will require any operation and maintenance, this fund is supposed to pay for it.

I approved a site remedy 3 weeks ago that is going to be in place forever. It is a part of a drinking water system. As long as that city is using that drinking water system, they are going to maintain that project. It is a filtration and cleaning program. Under H.R. 5640 the fund would have to pay 90 percent of that cost as long as that system is used.

Mr. CONABLE. That is not a State entitlement system; that is a Federal entitlement system, 90 percent?

Mr. LEE THOMAS. The State is entitled to the 90-percent Federal money, that is correct, yes.

Mr. CONABLE. All right.

Mr. LEE THOMAS. The operation and maintenance over 5 years, we estimate, is $415 million. But over 30 years, we estimate that it is about $15 billion. It builds up significantly, largely depending upon how many sites you work, how much the money is going to cost. Over a period of time, you are building up quite an obligation.

There are a number of other provisions in the bill which we have costed out. They are included in the testimony. Each one has a little bit more; each one is an add-on. Total estimated cost is $13.2 billion, and that is a rough estimate.

The point I wanted to make is the $13.2 billion is what we are talking about in the bill costed out. $8.7 billion is what you are talking about as far as revenue is concerned. If we run the program, the current program we are running, which is four times as intensive or as great as the program that I found 18 months ago when I got to EPA, it is a $5 billion program over 5 years.

Our program is concentrating on trying to deal with the uncontrolled hazardous waste sites that Superfund started off dealing with. My concern with H.R. 5640 is that—and I understand the Members' desire to move forward with this program. It is a frustration that we haven't moved any further than we have. It is a frustrating problem—my concern is, if we tie in too much more to our authority, too many more requirements, we will broaden our objectives so much we won't have enough money to deal with the problem in the bill. That would set up an immediate conflict between us and the members who want the job done—we will have such broadened objectives that we will get away from the original purpose of the program, which was dealing with the uncontrolled hazardous waste sites.

Mr. Chairman, I appreciate the opportunity to be with you and talk through those things.

Mr. MOORE. Whoa. Get back to the chart.

Mr. GIBBONS. We have questions.

You say we now have a $13.2 billion program with this bill—that is, by 1990—and we raise approximately $8 billion worth of revenue in the bill. Is that the right figure? And we are short about $5 billion?

Mr. LEE THOMAS. Yes, sir.

The projections on feedstock that we have gotten from Treasury are about $6.4 billion; waste end about $870 million; import taxes, $296 million; general revenue, $1.1——

Mr. CONABLE. General revenues would have to cover everything that isn't covered by the others, wouldn't it?

Mr. LEE THOMAS. That is right.

The bill, H.R. 5640, called for a general revenue of $1.1 billion.

Mr. CONABLE. What would be the actual cost on the basis of your figures, assuming that we did everything the law requires?

Mr. LEE THOMAS. $6 billion.

Mr. CONABLE. $6 billion of general revenue money?

Mr. LEE THOMAS. Yes.

Mr. CONABLE. Thank you.

Mr. MOORE. Mr. Chairman, I appreciate the Chair being indulgent of the Members to allow them to question out of order here during Mr. Thomas' excellent but disturbing testimony.

How much of this $13.2 billion can you spend in that 5 years? That is a pertinent question. We see the bill orders you to do it, but I am led to believe there is some question that you can gear up and do that. How much of that $13.2 billion can you spend?

Mr. LEE THOMAS. I think that is absolutely a primary point in this whole reauthorization discussion. We have taken the program dramatically over the last year and a half to a level that is straining our administrative ability to handle it. We have tripled the budget. We are close to doubling the staff. I think that needed to be done. I don't question it.

I think we are going to have to go up more. I project that where we are now—last year and this year, we have started about 100 to 120 new major priority site projects. We have run at 150 to 200 emergency removal actions. As I look at where I am going with this program, that means I am going to be running on an annual basis about 200 sites where I am taking emergency action, starting 100 to 130 new priority list projects, and managing about 400 major ongoing construction projects.

I suggest to you that that is where we ought to stay for a while until we see if we can manage that. That is dramatically above where this program was. Given the complexity of the problems, we are trying to do that. If you ran it at that rate, it would cost $5 billion during the next 5 years.

Mr. MOORE. Are you telling the committee that the amount you think can reasonably and wisely be spent is $5 billion over the next five years?

Mr. LEE THOMAS. I am saying that that will require a hell of a lot of work.

Mr. MOORE. Give me a yes or no answer.

Mr. LEE THOMAS. The answer is yes.

Mr. MOORE. And even if Congress passes the bill ordering all these other things be done, your position is still that the amount that you could reasonably expect to spend would be $5 billion?

Mr. LEE THOMAS. With efficiency and effectiveness, reasonably spend, the answer is yes.

Mr. MOORE. Thank you.

Mr. GIBBONS. Did you discuss this with the Energy and Commerce Committee? And, if you did, what was their response?

Mr. LEE THOMAS. We discussed various components of the things I am talking about with staff members and some Members of the Energy and Commerce Committee. We did not have and had not completed these kinds of estimates when the Energy and Commerce Committee completed their work, because we didn't know what the final provisions of the bill would be.

A number of components we did; for instance, the mandatory schedules. The original schedule would have cost $4 billion more than this. They had a schedule that would have cost nearly $12 billion during 5 years to meet as opposed to $7 billion.

We talked about that with them. We talked about it from the point of view it cannot be done, you cannot run a program that fast, much less get the money to run a program that fast.

Mr. GIBBONS. Is there sufficient flexibility in here if we only put the revenue figures in, that have been suggested by Energy and Commerce? What do you do, do you set the priorities yourself or what has to happen?

Mr. LEE THOMAS. I am not sure I am following exactly what you are saying.

Mr. GIBBONS. Well, there are two ways of changing this, one would be to not provide the revenue; the other would be to change the schedule.

Mr. LEE THOMAS. I would urge——

Mr. GIBBONS. We have very little to do over the schedule but we have a lot to do over the revenue.

Mr. LEE THOMAS. That is right.

Mr. GIBBONS. Now, what would happen to you if we only put in the revenue, the $6 billion that Energy and Commerce has suggested?

Mr. LEE THOMAS. If you don't put the revenue in, Mr. Chairman, we will find ourselves spending most of our time in court because another provision of this bill is if we don't meet these schedules, we can be taken to court because we did not meet them. They are nondiscretionary schedules. We have to meet them. There are also other provisions of this bill, a citizen's suit provision that says any citizen can take us to court for not meeting any particular mandatory provision of this bill. If we don't have the revenue in this bill to do the job—we may find ourselves defending ourselves in various district courts around the country.

Mr. GIBBONS. We will be right back.

[Recess.]

Mr. GIBBONS. All right, ladies and gentlemen, we will resume the hearing.

We were proceeding rather informally there, but I guess we get right back to this: The feedstock tax will raise about $6.5 billion over 5 years; there is another $1 billion plus in general revenue; the waste end tax will raise about $870 million and the so-called import tax about $296 million.

You figure it will cost $13 billion to run this program.

Mr. LEE THOMAS. Right.

Mr. GIBBONS. You say you will end up in court being sued by everybody if you don't run it up to the $13 billion standard because there are mandatory requirements that you run it that fast. Am I not reasonably correct there?

Mr. LEE THOMAS. Yes, sir.

Mr. GIBBONS. What are your suggestions?

Mr. LEE THOMAS. Mr. Chairman, I would suggest that—I recognize this is the Ways and Means Committee, primarily interested in the financing aspects of this bill and a lot of the concerns I am presenting to you go beyond just the financing aspects of this bill although that is an obvious big one. It is that this committee would make recommendations to the next group that is going to deal with this bill, if you don't feel comfortable with making modifications to the programmatic aspects of it so that these issues can be dealt with.

I urge the Members of Congress to do that before we complete action on this Superfund Program so in fact we don't end up with something that is going to set back a program that has been traumatic enough to this point.

Mr. GIBBONS. And no reflection upon you or upon the Energy and Commerce Committee—there just has not been sufficient time to discuss this with the leadership of that committee over there. Am I reasonably correct in that? Or are they fully aware of these problems?

Mr. LEE THOMAS. No, sir, I don't think they are. We have had discussions on some of these issues. I think the thing has moved so fast and I don't think we have had sufficient time to discuss all of these issues with the leadership of the committee, although we have discussed a number of these issues with them.

Mr. GIBBONS. Do you know of any—from your limited discussions with the Energy and Commerce Committee—disagreement they have with you over these figures?

Mr. LEE THOMAS. No, sir.

Mr. GIBBONS. Or do they disagree with the figures?

Mr. LEE THOMAS. No, sir, these figures—we have only just concluded our work on these figures. I don't think Energy and Commerce has had an opportunity to react to these figures.

Mr. DOWNEY. Mr. Chairman.

Mr. PEASE. Would the chairman yield?

Mr. GIBBONS. Yes, I have asked enough questions. Go ahead, Mr. Pease and then Mr. Downey.

Mr. PEASE. I intended to ask the chairman to yield on this one point but I have other questions if he wishes me to continue.

I would assume that the Energy and Commerce Committee having reported out a bill which would cost $9.5 billion by their estimates, believes that the job can be sufficiently done at this level of funding. Would you agree?

Mr. LEE THOMAS. Yes, I would agree, sir.

Mr. PEASE. So any disagreement you have arises because you have come up with figures after the Energy and Commerce Committee reported out the bill, is that correct?

Mr. LEE THOMAS. That is correct.

Mr. PEASE. And our option as the Ways and Means Committee is to provide revenues of $9.5 billion or less and thereby force the programmatic change or force some difficult situations and choices over the next 5 years; or to increase the amount of revenue beyond $9.5 billion?

Mr. LEE THOMAS. I think you are right. I think that the last option in this whole process is, as the full Congress considers that, they can make modifications in the Energy and Commerce recommendation.

Mr. PEASE. And as I understand your previous answer to the chairman, your preference is to operate at a much lower level than the Energy and Commerce Committee would prefer for the next 5 years, is that correct?

Mr. LEE THOMAS. My preference is to operate a very aggressive hazardous wastesite cleanup program. H.R. 5640 goes far beyond that.

Mr. PEASE. Well, in terms of the number of sites that would be cleaned up at the end of the 5-year period, what is the difference between what H.R. 5640 envisions and what you envision?

Mr. LEE THOMAS. At the end of the 5 years, a program that I presented to you would result in 647 sites where remedial action has been completed. That is the number that is often used when you talk about cleanup.

H.R. 5640 would have 704 sites with remedial action completed. Their bill would result in 55 more sites in 5 years than the program I presented to you.

Mr. PEASE. If that is true, why is it beyond your capacity to administer H.R. 5640 as reported by the committee? That is less than a 10-percent increase over what you say you can do anyhow.

Mr. LEE THOMAS. Because most of the additional costs in H.R. 5640 have to do with the new responsibilities that I would be given, the underground storage tank program, the regulatory program, all the different new responsibilities. Additionally, the mandatory cleanup schedule in H.R. 5640 will have the greatest cost implications after 5 years because of lag time in construction.

The engineering study costs on average $800,000 per site. The construction costs on average $7 million per site. In H.R. 5640 the big increase in engineering studies is in the fourth and fifth years, which means after this authorization period you will pickup most of the construction cost associated with that.

Mr. PEASE. Are those construction costs included in the $9.5 billion?

Mr. LEE THOMAS. No. They would be included in when you come back 5 years from now and consider reauthorization again.

Mr. PEASE. Wouldn't that be an advantage, though, to get that engineering work done in the fourth and fifth years of the next 5-year cycle so we have a head start going into the subsequent 5-year cycle after this?

Mr. LEE THOMAS. It would be if you think you could manage that many sites at a time, and I don't think we can from an administrative point of view, technical point of view. I don't believe you can initiate 275 or 375 new priority list sites in any one year when you are trying to manage 300 to 400 to 500 on going construction projects.

Mr. Pease. This morning we were given some very, very large figures on the number of sites that needed to be cleaned up by Mr. Florio. Can you give me your comparable figure?

Mr. Lee Thomas. He uses the figure 22,000. That is the same figure that we use as an estimate of the number of sites that will need to be assessed to determine whether they are hazardous wastesites or not. Our experience to date—and we have assessed 9,000 of the 22,000—is only about one in four turn out to be hazardous waste sites.

Mr. Pease. So if we can extrapolate from these figures, we have about 5,500 sites that need to be cleaned up, and you are going at the rate of 125 per year?

Mr. Lee Thomas. To move on beyond—don't take the 5,500—the 5,500 are the unassessed. To determine those to be cleaned up under the Superfund Program, priority sites that should be cleaned up under the Superfund Program, to date it is turning out that one in four to one in five of those would need to be cleaned up under the Superfund Program. So of the 5,500 or 6,000 that you have identified our estimate is that between 1,400 and 2,200 sites would end up needing cleanup under the Superfund Program.

We have used the figure of 1,800 as a middle figure for estimates.

Mr. Pease. OK.

Mr. Lee Thomas. So 1,800 sites—if you project how long it will take to clean up 1,800 sites, that is the figure you are getting to in numbers of years. If you start, say, we start now at 130 sites per year, new sites per year, you are talking about 10 years.

Mr. Pease. Looks like a little more than 10 years to me.

Mr. Lee Thomas. A little more than 10 years it would take you. You would have initiated all your work in the 1,800 sites in 10 years, in other words you would have started your work and you would have about 2 years beyond that to finish up construction.

Mr. Pease. Looks to me like 11 to 18 years, something in that range.

That sounds like a pretty optimistic set of assumptions.

Well, Mr. Thomas, my time is somewhat limited, I want to yield to other members of the committee, but I mean this as no disrespect to you at all. You appear to me to be a competent person and I presume interested in carrying out your responsibilities and I understand that there has only been an improvement since you have taken over the program.

But I must say that one of the reasons why it is difficult for us to accept at face value the testimony from you or anybody else from the administration is the general attitude that we have got from the administration over the last few years. We in Congress know there is a philosophical aversion in this administration to Federal programs of any kind. We know that there is a philosophical aversion to hiring additional Federal employees which seems to me to be the answer to a lot of the problems that you cite today.

And a philosophical aversion to higher taxes, especially on corporations.

We have had the experience 3 months ago of the Customs Service coming before this committee and telling us they wanted to lay off 800 people so they could do a better job of enforcing the Customs law—on the face a ridiculous position.

So it is hard for us to separate out what is the—what are the practical considerations that we certainly ought to take into account, from what the philosophical coloration is of this administration.

I must say it is frustrating for us in the Congress to be in that position. We are legislators, we ought to be turning to the bureaucrats and technicians and engineers who are charged with administering these programs, but frankly, we are in the position where we don't feel we can entirely trust the expert information that we are supposedly getting from the administration.

I just wish there were a way to make it easy for us, or make it possible for us to separate the philosophical views that I am sure in the case of the Customs Service were imposed by OMB—it couldn't have come from the people who really had to run the Customs Service—from the expert knowledge which is available.

I don't know how we go about doing that, but I just wanted to share that source of frustration with you.

Mr. **Lee Thomas**. Mr. Pease, if I could just respond. I understand your point. I think as far as this program is concerned—and I have been responsible for managing it now for almost a year and a half—the commitment that we have tried to show in EPA and in the administration is a commitment to clean up as quickly and as effectively as possible the problem caused by uncontrolled hazardous waste disposal in the past.

That commitment, as far as I am concerned, has been carried out, and as far as the concern of the administration, they have backed me up. They have backed me up by going with an appropriation request this year asking for a supplemental of $50 million over and above what you appropriated last year.

I am still waiting for Congress to act on that. A request for fiscal year 1985 of $640 million, and Congress cut me by $40 million. So my commitment, and I think the administration's commitment, is to try to move this program aggressively, to get on with the job.

And it is frustrating for me that we can't trust each other in trying to get on with that, and that we have that kind of discussion.

Mr. **Gibbons**. All right, let's go on now. Let's all start trusting each other. Come on, Mr. Downey, go ahead.

Mr. **Downey**. With all due respect to Mr. Thomas, I am afraid my litany is going to be like my colleagues'. I want to love you and I want to trust you. But frankly, the history of this program doesn't lead me to trust you.

Let me just cite a couple of things. Mr. Chairman, if the Libyans or Cubans or Russians had deposited toxic waste in 17,000 places in the United States, there would be no amount of money that this country wouldn't spend to clean it up and to make sure that the Libyans and Cubans and Russians were not punished for doing it.

So, the fact that there may or may not be enough people, that Mr. Thomas feels is aggressive or not aggressive, is frankly irrelevant to me. There are toxic waste dump sites out there that we are not cleaning up despite the more aggressive nature of this current group than the previous group of people.

It is a little like a starving person who has been starved for two and a half years, now being confronted with a full meal, and the people who had been starving before are looking at the meat and potatoes and the milkshakes and saying, "Well, I don't know, I don't know that I can eat all this right now. I don't have really the stomach capacity for it."

The fact is, for the last two and a half years, this program has been mismanaged in my view, misfeasance, malfeasance—I don't know what you want to call it—but I just feel the committee owes it to itself to just spend a minute while we are throwing bouquets and asking for trust, to look at what has happened to this program.

When Ms. Burford and Ms. Lavelle ran the program, the charges that were made by the Commerce Committee and the people investigating it were that the program was proceeding too slowly, that there was a more willingness and interest to negotiate as opposed to legally go after people, there was another charge that there was EPA with White House connivance to accelerate or retard clean-up programs based on political considerations—all of these things led to the discharge of, under I think a cloud of Ms. Burford and Ms. Lavelle.

I believe EPA has made a good-faith effort over the last year and a half under Mr. Ruckelshaus to improve that image, and I think they have. But I frankly do not buy for one minute the argument that you are constrained by people, that you can't spend the money properly.

We will give you more people, we will force you to hire more people. Are you suggesting for a moment that in this great land of 235 million Americans that there isn't the talent, that there isn't the expertise to clean up toxic waste sites in a more expeditious fashion than the one you have laid out today?

Mr. LEE THOMAS. Well, I am suggesting that the program I have laid out is one that we can manage effectively, efficiently, given the constraints of trying to do it as fast as possible because of the problems presented. The fact we can move out and take action immediately at any site that presents an immediate threat; the fact that we work within a government system where we get appropriated money from Congress, and we can only spend what we get, you have not given us what we have asked for; the fact we have to go through procedures to hire people, put them in place, train them and run the program—these are all constraints and I am suggesting to you that the $5 billion program that I laid out for you is a program that I think will allow us to get on with in an expeditious manner with cleaning up those sites.

Mr. DOWNEY. During the break, I asked Mr. Florio and several other members of the Commerce Committee, whether my understanding is correct that Mr. Ruckelshaus told the committee during the process of authorization that EPA had enough people and that more people were not necessary to do more work?

Was that his testimony?

Mr. LEE THOMAS. No, sir.

Mr. DOWNEY. You need more people then, is that my understanding?

Mr. LEE THOMAS. Yes, sir.

Mr. DOWNEY. How many more people do you need? Say we wanted to double the cleanup of 230 sites. Say that was not enough. I want you to do 300. How many more people would you need?

Mr. **Lee Thomas**. We could give you those figures. We could cost them out and look at how many sites. But you have constraints on your program beyond just people. You want it done properly. That means you want to be sure the site is properly analyzed and you know the full extent of the problem. As I mentioned, many are indicated ground water problems.

You have constraints beyond just people, beyond just money. You have constraints of lab capacity, what analytical capability is there? How fast can it go up, so you will have quality information to make determinations?

Mr. **Downey**. Is it fair for me to assume, since I have experience as a chemist, my father is a chemist and deals with these subject all the time, that if more than money were available, more lab capacity would be suddenly available because there would be more lab work to do?

Wouldn't it be fair to assume the wonderful free system the administration talks about would respond aggressively to the fact that more money could be made by analyzing more toxic waste sites. Is that a fair assumption?

Mr. **Lee Thomas**. I am suggesting there are limits on the size of the program that can be run to get an efficient and effective program. I am suggesting that there are limits there.

There are limits on trained personnel, whether they be hydrologists or whether they be trained analysts who work on an analysis of the materials we look at.

I am suggesting that there are limits.

Mr. **Downey**. Well, I thank you for your testimony. I believe it is honestly given. Mr. Chairman, since my time has run out, I would hope that over the course of debate, when we talk about this that we can talk about the limits and that you can send us more information with respect to personnel constraints.

But, as I said before, limits as has been laid out by Mr. Thomas, are important things to consider. What is more important in my view to consider is the fact that the political will and the political commitment to take care of this go forward.

I think there is both the will and the commitment in this country and I frankly don't know how I would tell the people in North Babylon who are having to move out of their homes, because of a gasoline tank leak, that there are just too few people or too few labs to take care of their problem, they are going to have to get in line and just be patient while we sort the bureaucratic problems out.

I don't know how political people explain these constraints, but I suspect we will be hearing as we deliberate this bill, some of the suggestions of how we do it.

Mr. **Gibbons**. All right, Mr. Gradison.

Mr. **Gradison**. Thank you, Mr. Chairman.

I have enjoyed listening to the gentleman from New York extoll the virtues of supply-side economics. And the representative of the administration expressing reservations. I think it has been an interesting discussion.

Mr. **Gibbons**. There is hope for all of us.

Mr. **Gradison**. What I hear, though, I have to separate two things in my mind, Mr. Chairman. One is the program to be carried out, the other is how to finance it. Whether we are for or against forced feeding, once the determination is made of how much money is needed for the program, it is the responsibility of this committee to come up with the money.

I think there may well be some limitations and I don't know where they are, but some limitations that we should bear in mind with regard to the speed with which we can increase the tax burden on many of these industries without harming the competitive position of American industries and diminishing jobs.

Now, you know, we can print the money and go through the general fund and I understand that is an alternative, but the assumption has been that most of this money—87 percent or something of that sort—will come from earmarked taxes.

So, if it is not totally out of order, Mr. Chairman, I would like to attempt to focus on the questions which are before this committee, which are, how do we raise this dough? I have not heard any discussion about that in the testimony of EPA as yet.

I am concerned about it. I said earlier in questioning another witness, I know nothing about chemistry, but I do understand from looking at the lists that there are some feedstock, for example some metals, that are going to be taxed, aluminum and zinc, and some that won't be, copper and iron. Why?

Is this the right rate schedule? Does the administration have another set of figures? What are you recommending on the part of this bill which is before the Committee on Ways and Means?

Mr. Lee Thomas. Mr. Gradison, we do have thoughts on that whole issue. One of the frustrations or difficulties for us is that a major component of the Superfund legislation that you passed before called for us to do a number of studies and give them to you by December.

Two of them, as a matter of fact, had to do with the whole taxing issue. We had those under way, accelerated the timeframe, tried to have drafts finished by the middle of October.

One of those is a study that talks about feedstock and waste end taxes, talks about the experience with the existing feedstock tax, what we found as far as its impact on balance of trade, what we found as far as the substances we find at the hazardous waste sites and their relationship to the feedstocks themselves, talks about issues on waste end like administrability.

I can talk tentatively about that, but I would hope the studies will be fairly conclusive and will give us the ability to make recommendations to you.

The feedstock tax we find, as has been stated by Treasury, is a stable revenue source as far as this program is concerned, therefore, that is quite an advantage. We need a stable revenue source.

The fact also is that we find, we are finding a close correlation between what we find at the hazardous waste sites and the feedstocks. We are finding a close correlation, say, 80 percent.

So, from an equity point of view, we think the original concept of the feedstocks seems to make sense, based on what we are finding at the sites themselves.

As far as which new substances may need to be added, whether the rates for specific substances need to be changed, that is part of the work we have under way.

We would like to see more of a rationale, possibly for instance, associating the rate for a substance to what we are finding at sites, if there are large numbers of sites with a single substance, maybe the rate on that substance should be higher than on another substance.

That rationale we have not—that is a part of the study work we are doing.

Mr. GRADISON. Are you far enough along with that to give us even tentative comments on the suggested schedule developed by the other committee?

Mr. LEE THOMAS. I am afraid we are not. As far as the waste end tax is concerned——

Mr. GRADISON. Yes.

Mr. LEE THOMAS. There are major issues associated with administrability of that. The concept of a waste end tax is a disincentive for land disposal and one that has merit, and we are exploring. The administration of a waste end tax and how you put that in place, that presents a tremendous number of issues. For instance, the waste end tax incorporated in H.R. 5640 is extremely difficult, and we can talk to you about some of the specifics to figure out how you would do it.

For instance, right now those individuals who generate less than 1,000 kilograms of hazardous waste per month are exempted from the RCRA program as far as generation is concerned. However, they must dispose of that in a State approved facility—not necessarily a subtitle (c) facility but it must be State approved. That would be subject to that waste end tax. That would mean you pick up several hundred thousand small quantity generators as the people who you look to to pay that tax on whatever little portion of wastes they disposed of. So the administrability of that is almost impossible to imagine from an IRS point of view.

There are a number of different components like that that you get into. For instance, States can have more stringent programs than the Federal Government, so they can identify more wastes than we do. How do we pick those up? We have all kinds of provisions under RCRA for recycling. You are exempt from the system, whether it is burning waste or recycling a particular product.

Trying to identify what is treatment and what is recycling and what is disposal will present all kinds of issues when we look at waste end. These are the issues we are working through in our studies to see if there is a mechanism for administering that tax that makes sense.

Mr. GRADISON. The bulk of this money we are being asked to raise, as I understand it, would continue to come from the feedstocks taxes?

Mr. LEE THOMAS. By far.

Mr. GRADISON. By far, all right.

Is there any merit in the idea that we ought to approve those and just set it aside until we get additional information, set aside the question of which waste end taxes to apply? I have no objection to the waste end taxes in principle. I am not asking this from the basis of trying to deep six something. But I feel we are flying blind, to mix a metaphor.

I just wonder whether we would be seriously handicapping the program—which I have no desire to do—if we were to go ahead with the major portions of this bill, but delay action on just that portion, the waste end portion, until we get a better analysis of what should be included.

Mr. LEE THOMAS. Well, Mr. Gradison——

Mr. GRADISON. Do you have any thoughts on that?

Mr. LEE THOMAS. The immediate dilemma you face is picking up the $1 billion you lose by dropping that out, as far as revenues is concerned. But, you are right; there are all kinds of questions we are trying to work through on how you administer a waste end tax.

Mr. GRADISON. Thank you very much.

Thank you, Mr. Chairman.

Mr. GIBBONS. Mr. Moore.

Mr. MOORE. Thank you, Mr. Chairman.

Mr. Thomas, I have a series of questions. The first two should be easy.

The first is, would you have an appropriate staff expert, that works with you, work with the Ways and Means staff to identify feedstocks of hazardous substances that have been found by EPA in the sites?

Mr. LEE THOMAS. Yes.

Mr. MOORE. We are not sure they are all in the bill.

Mr. LEE THOMAS. Yes.

Mr. MOORE. Second, the same question I asked Treasury: Would you have your experts work along with Treasury with the Ways and Means staff to advise Ways and Means staff in writing as to whether the feedstocks currently listed in H.R. 5640, subject to the feedstock tax, would satisfy each of the criteria listed in the joint committee pamphlet as factors considered when the current feedstock tax was adopted?

Mr. LEE THOMAS. Yes.

Mr. MOORE. We will see if we are changing how we measure that.

Mr. LEE THOMAS. Yes, sir.

Mr. MOORE. The next two things I have are, in looking at a waste end tax, we currently have sort of a waste end tax in the law now, a dry weight system. The waste end tax proposed by the Energy and Commerce Committee in this bill is a wet weight. That causes problems, I understand, for deep well injection people in terms of taxing them for something that is not a hazardous waste.

Do you agree with that? Should we consider changing it? Should we stay with the waste end tax, either change it to dry weight or at least give deep well injection people a dry weight measure?

Mr. LEE THOMAS. There are those implications, I think, and that is if you go with a wet weight tax, obviously you impact one part of a disposal process more than another, particularly those with highly diluted substances. How you translate then, say, your highly dilute substances to dry weight basis or change the tax rate on them is something you need to look at if you want to have an equitable tax on waste end across the board.

Mr. MOORE. My next question is very similar, that is, I don't think in a waste end tax we want to tax somebody who is properly disposing of, for all time—not storing—the hazardous waste, such as a recycling or incineration or a proper treatment.

Now, we understand there is great confusion with the way the language is drawn in the waste end tax now, as to which activities should be taxed, which would thereby discourage the ultimate resolution of that hazardous waste by favoring dumping it in a site somewhere, which is not what we want.

Do you agree with that observation?

Mr. LEE THOMAS. Yes. That is one of the real issues I think we are trying to come to grips with as we look at it, particularly because of the recycling incentives and reuse incentives you want to build into any program; the definition of what is "treatment." The definition of "recycling" as opposed to disposal where you tax it, is going to be key, of course.

Mr. MOORE. Thank you. That is very helpful.

Last, we spent an awful lot of time today trying to resolve the key problem facing this committee: How much money we are to raise. You indicated to us—you testified very soundly on that about the $5 billion for the next 5 years.

Could you tell us how much you need each of the years of those 5 years?

Mr. LEE THOMAS. Well, Mr. Moore——

Mr. MOORE. So we can determine how quickly we must raise it.

Mr. LEE THOMAS. If we want a program at the rate we run now, which is what the $5 billion was based on, it averages about $1 billion a year. It is a little higher the first year than the last 4. The reason for that is because of a surge in the number of new projects we started in the last 18 months. But it rounds out close to $1 billion, because you are at a pretty much steady state now. We have it up to 130 new projects a year, and if we continue that for 5 years it would run about a billion a year.

Mr. MOORE. Thank you.

Thank you, Mr. Chairman.

Mr. GIBBONS. Are there other questions of the EPA?

Mr. Guarini.

Mr. GUARINI. Just to follow up on what you said.

From what you told me, you don't expect, Mr. Thomas, any growth or expansion of the program other than to have a steady continuity of what you have set in motion already.

Is that what you are saying?

Mr. LEE THOMAS. That is what I projected in the $5 billion program. The program 18 months ago was looking at starting 30 new projects a year. We have quadrupled that to look at 130 new projects a year. Given the complexity of the problems we deal with, my expression was that that was a good figure to look at in continuing that program. That $5 billion did not include additional mandated requirements; in other words, it included the current program.

Mr. GUARINI. I understand.

Mr. LEE THOMAS. The current figures.

Mr. GUARINI. So what you don't intend to do over the next several years that we are talking about is to step up your activities but keep the pace and maintain it as it is now.

Is that correct?

Mr. LEE THOMAS. In other words, we stepped it up, and if we can maintain that stepped up progress we would get that figure over the next, as you say, 6 years and 3 months.

Mr. GUARINI. Do you think we have the capacity to intelligently step up our efforts to get rid of toxic wastes?

Mr. LEE THOMAS. Over and above where we have stepped it up to today?

Mr. GUARINI. That is right.

Mr. LEE THOMAS. I have doubt about that.

Mr. GUARINI. Are there logistical problems or management problems, or are you concerned about the amount of money we would be forced to extract from industry?

Mr. LEE THOMAS. No; it is certainly the logistical, management and technical issues associated with it. When I went in—and the staff is here with me, and we can talk about specifics—but the kinds of management problems associated with trying to run the program at the rate we are running it now have been significant over the last 18 months.

Mr. GUARINI. But we are picking up expertise. We are picking up knowledgeability. We are picking up techniques——

Mr. LEE THOMAS. Quite a bit, yes.

Mr. GUARINI [continuing]. That can be improved on over the next——

Mr. LEE THOMAS. By this time, we will have close to double the staff we had a year ago, from 1,000 to 2,000 staff, in this program.

Mr. GUARINI. What objection would you have to raising the money for a trust fund, raising $9½ billion and keeping it for a trust fund? In the event we have a stepup effectively and can make more progress, then the money will be there. We have aviation trust funds and highway trust funds. We don't spend all the money, but by the same token it is there in case we are able intelligently to use it and plan for it in the future.

Mr. LEE THOMAS. One of the primary concerns I have is when you raise the money, there are a lot of people who want to spend the money. One of the things I see in H.R. 5640 is there are a lot of things that want to get tacked on to this fund.

Mr. GUARINI. Your first trust is not raising money; your first trust is in getting the job done.

Mr. LEE THOMAS. I agree with you.

Mr. GUARINI. If you want to get the job done, you want to see the wherewithall available to you and to your department; is that correct?

Mr. LEE THOMAS. That is correct.

Mr. GUARINI. Are you concerned about the possibility of lost jobs or plant closings or the trade balance? Are these things that you pump into your criteria?

Mr. LEE THOMAS. Those will all——

Mr. GUARINI. In your testimony today, do you include that?

Mr. LEE THOMAS. They would all be put in the administration's proposal for this program, I am certain. Those are not things that I put into my testimony today. My responsibility in testifying today was in the area of managing the cleanup program.

Now, what I am suggesting, and what we were called upon to do by the President not long ago, for instance, was to spearhead an interadministration effort to pull together a recommendation from the administration to Congress for reauthorization of this program next year. Congress has moved ahead of that, obviously. So what I am proposing to you does not incorporate those other kinds of considerations that you just laid out.

You heard some of the concerns of Treasury, for instance. I am sure that Commerce will have concerns, and other executive branch agencies.

Mr. GUARINI. But you could do more than maintain the steady pace that is going on now?

Mr. LEE THOMAS. From my point of view, as far as manager of the program, that is the pacing we ought to run.

Mr. GUARINI. That is the most efficient pace you feel you should run; is that correct?

Mr. LEE THOMAS. That is the effective pace. I don't think we can go above that without major issues associated not only with quality, which is a critical concern in this area when you are talking about toxic wastes and talking about people's health, but also quantity.

Mr. GUARINI. Could we broaden our base and make the tax fairer by extending items, and will you give us items we could consider?

Mr. LEE THOMAS. You are talking now about the feedstock?

Mr. GUARINI. That is right.

Mr. LEE THOMAS. One of the things we will give you is a report that lays out what substances we have found in all the sites we have looked at so far.

Mr. GUARINI. How soon could we expect that so we could have it for our consideration?

Mr. LEE THOMAS. I think we can give you tentative information on that within the next several days. The report that has the conclusive information in it is not due until mid-October. That is a draft at this point.

Mr. GUARINI. Do you consider the waste end tax fair and workable, as it is currently proposed?

Mr. LEE THOMAS. I think the principle of waste end, particularly as it relates to the disincentive of disposal, is one that I agree with. The management capability and administrability of it—a lot of questions we have to answer. The Treasury is more expert in that area than I am.

Mr. GUARINI. Thank you.

[The prepared statement follows:]

STATEMENT OF LEE M. THOMAS, ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Good morning, Mr. Chairman and members of the Committee. I am Lee M. Thomas, and I am Assistant Administrator for Solid Waste and Emergency Response of the U.S. Environmental Protection Agency. In that capacity, I oversee implementation of EPA's hazardous waste management regulatory program under the Resource Conservation and Recovery Act, and the national hazardous site cleanup program mandated by the Comprehensive Environmental Response, Compensation and Liability Act—the Superfund.

It is a pleasure for me to be here today to offer my perspective on our recent progress in implementing Superfund, the direction we are heading in the coming years, and our assessment of the impact of H.R. 5640 on our program goals and objectives.

Let me begin by stating the Administration's unequivocal support for the Superfund program, our belief in its purposes, and our commitment to its implementation. Elimination of imminent hazards caused by uncontrolled hazardous sites using our removal authority, and applying the act's remedial authority to address long-term hazards at priority sites are currently two of this agency's highest priorities and will remain so during fiscal years 1985 and 1986.

I believe our record during the past 18 months stands as tangible evidence in support of our commitment to Superfund. We have aggressively gone about the tasks of addressing immediate threats at hundreds of sites nationwide and initiated long-term cleanup actions at hundreds of other priority sites.

Since Bill Ruckelshaus and I joined EPA early last year, we have worked to build a program that protects public health and the environment from the immediate and longer-term dangers associated with improper management of hazardous wastes. A momentum unmatched in Superfund's history is the product of our efforts during the past 14 months.

The primary goal of Superfund is to clean up hazardous wastes endangering human health and our natural resources. Therefore, it is imperative that any legislation designed to reauthorize Superfund be crafted in such a way as to build on the momentum already achieved. Unfortunately, this would not be the case with H.R. 5640.

Based on experiences to date under the current law, a series of on-going studies we are conducting under that law, and an examination of the provisions of H.R. 5640, I am concerned that the bill currently before this committee could actually bring to a halt the progress we have been achieving.

As you know, we have estimated that it will take some $8 to $16 billion to clean up the 1,400 to 2,200 sites we project will ultimately be included on our National Priorities List. H.R. 5640 is intended to provide us with an additional $9 billion over the next five years. It would also saddle us with billions of dollars worth of costly new responsibilities, many of them unrelated to the original purposes of Superfund.

The result could be the paradox of actually slowing down cleanup operations which are the heart of the Superfund law. The mandatory scheduling provisions of H.R. 5640 alone will cost more than $7.4 billion over the five-year life of the reauthorization—that represents the bulk of the increase in funding over the current program. This figure does not account for increased costs, not to mention the administrative burdens, associated with new requirements for mandatory cleanup standards, problems associated with leaking underground storage tanks, new federal operation and maintenance requirements, citizen suits, technical assistance grants, health effects studies, and various other provisions of the proposal.

Every dollar spent for these and other new additions to Superfund will mean less money available for cleaning up additional hazardous waste sites. I feel strongly that we cannot afford to risk the momentum we have established since last year. Before getting into a detailed discussion of the problems that I see with H.R. 5640, allow me to review just where we are in implementing Superfund, and where we are going.

I have attached some charts to my testimony to depict the upturn we are experiencing in Superfund activity, and I will be happy to explain these charts more fully at the conclusion of my statement if Committee members so desire. For now, however, I will just emphasize some major points which illustrate the magnitude of the cleanup problem.

We are currently aware of approximately 18,000 potentially hazardous sites around the country, and we project this universe could grow to more than 22,000. To date, we have conducted preliminary assessments at more than 9,000 of these sites and found about 2,200, or roughly one in four, warrants a full field investigation.

Of these, 552 have been listed on the National Priorities List. The NPL will be updated again later this year. We project it will grow to between 1,400 and 2,200 priority sites.

The Superfund statute provides us with two types of authority to deal with the public health and environmental consequences of uncontrolled hazardous sites. Under the removal authority of Superfund, we deal with sites that pose an immediate threat to health or the environment. These short-term actions are usually completed in less than six months and cost less than $1 million. A site does not have to be on the National Priorities List to qualify for removal action.

Under the remedial authority, priority sites posing a long-term threat to health or the environment are cleaned up. Each cleanup is a complex engineering project that can take years to complete. Where groundwater is contaminated at a site, as is the case with more than half of those on the NPL, it may take 20 to 30 years or more to complete final cleanup, site monitoring and maintenance.

As I said, our efforts to implement Superfund have gained a great deal of momentum during the past year and one-half. As of the end of the second quarter of fiscal year 1984, we had approved 314 removal actions, including 100 at sites on the National Priorities List. During each of fiscal years 1984 and 1985, we project conducting at least 170 removal actions to eliminate threats to human health and the environment.

Under the remedial program, we have begun comprehensive feasibility studies that will be used to actually implement site cleanup at roughly half of the NPL sites. By the end of fiscal 1985, these comprehensive cleanup plans will be underway at approximately 400 sites. We will have commitments for construction at 120 sites by the end of the current fiscal year, including initial remedial measures and private party cleanup agreements.

We are proud of these strides we have made in carrying out the Superfund program, as measured by these numbers. Our commitment to Superfund can also be measured by the level of resources we have committed to it. The budget for Superfund has increased from $210 million in fiscal 1983 to some $620 million approved recently by Congress for fiscal 1985.

I am concerned that much of the progress I have just reviewed could be jeopardized by H.R. 5640. However well-intentioned this legislation, it would impose on us a number of serious new administrative and technical burdens which will hamper us in accomplishing our primary mission—to clean up uncontrolled hazardous sites.

The ironic truth about this bill is that, although it would dramatically increase the number of dollars collected from private industry, it provides inadequate resources for the actual cleanup of the additional sites required by the bill. Additionally, management, technical and personnel resources currently dedicated to site cleanup could be sidetracked if we are forced to meet the rigid schedules and perform the additional duties mandated by H.R. 5640. Allow me to elaborate on a number of provisions of the proposed bill.

MANDATORY TIME SCHEDULES

Section 111 of H.R. 5640 sets out a mandatory schedule for implementing Superfund cleanups. It sets arbitrary deadlines for commencing specified numbers of remedial investigations/feasibility studies (RI/FS) preliminary assessments of potentially hazardous sites, initiation of on-site constructions, and actual completion of long-term remedial action at sites on the National Priorities List.

We estimate the cost of achieving these deadlines could be a staggering $7.4 billion over the five-year period from fiscal 1986 through fiscal 1990. This does not include other costs I will set out shortly.

In addition to the tremendous dollar impact of H.R. 5640's mandatory schedules, they carry with them important administrative problems which are the result of inconsistencies within the bill itself. For example, the measure would require EPA to undertake 275 RI/FSs in the fourth year and 375 RI/FSs in the fifth year. It also mandates that we begin at least 150 remedial actions per year.

Not only are the numbers of RI/FSs called for in the final years of the schedule unrealistic from a management standpoint, they will force far more than 150 long-term remedial construction projects called for under H.R. 5640 annually. There are important community relations considerations involved at this point, as public expectations may be raised far beyong the agency's ability to implement remedies at sites that have been through the study phase and are ready for cleanup activity.

To build and maintain the public confidence necessary for Superfund to succeed, cleanups must proceed smoothly from study, through design to ultimate cleanup. Yet, given the mandatory schedule incorporated in the proposal for initiating remedial action, H.R. 5640 will not provide enough resources to allow us to implement as many remedies in a timeframe that would be acceptable to the affected communities.

Should we opt to carry out the language of H.R. 5640 on this issue, we also face a problem of technical feasibility. Given that we would be conducting between 200 and 375 RI/FSs annually, it is quite possible that the RI/FSs done for many sites will become out of date and will have to be redone because sufficient funds will not be available to begin construction on all projects when they are ready for action. In addition, there is no indication at this point that the states will be able to finance the level of activity mandated by H.R. 5640. Yet before EPA can expend fund money for construction of a remedy, the state must assure that it will share those construction costs.

Similarly, there is a serious problem with the citizen suit provision of the bill as it relates to mandatory scheduling. Under H.R. 5640, the administrator would be subject to citizen suits for failing to meet any nondiscretionary schedule. This poses the grim prospect of the Superfund program being managed at some point in the future by the federal courts, certainly something never intended by Congress.

There are other related problems associated with the scheduling provisions of H.R. 5640. There is no recognition of the site-specific nature of Superfund cleanup activities in general. The bill does not account for problems that may arise in meeting the cleanup schedules as a result of sever weather conditions, contracting problems, state funding problems, and most important to this committee, revenue shortfalls.

Similarly, there is no recognition that some sites may need far more extensive and time-consuming groundwater sampling and monitoring to take place before a remedy be identified than others. Also overlooked is the inability of analytical laboratories to increase their capacity adequately to handle the increased workload that would come with meeting the statutory schedule.

MANDATORY CLEANUP STANDARDS

Section 107 of H.R. 5640 prescribes that the level of cleanup required at a given site be that "level or standard of control of each hazardous substance, pollutant, and containment at the facility which is necessary to protect human health and the environment." More specifically, where any standard under any statutes is applicable, the administrator is required to select a level or standard of control equivalent to the most stringent applicable cleanup standard.

While I understand the concern which have led to this proposal for what is, in effect, a statutory resolution of the "how clean is clean" issue, I think the bill attempts to be too specific given the nature of the remedial process. Because every NPL site is unique in terms of the quantities and types of wastes it contains, the extent of contamination, the hydrogeology and other factors, there is a need for flexibility in selecting a remedy.

I have no quarrel with using any relevant and applicable federal standard as the goal of cleanup. That is, after all, the thrust of the policy we are currently developing within the agency. The problem is with the mandatory nature of meeting those standards, and the fact that the waiver provisions of the bill are cosmetic and unworkable.

Yet there may be times when strict adherence to provisions of RCRA and other standards will add little or nothing to public health and environmental protection, but could dramatically increase the cost of site cleanup.

In all of these cases, it is essential that EPA have the flexibility to make site-specific public policy decisions. Otherwise, the effect of H.R. 5640 will, at times, be counter to its stated objectives. The result will be fewer sites cleaned up or less protection at greater cost.

UNDERGROUND STORAGE TANKS

The proposed elimination of the petroleum exemption from the Superfund response authorities under Title I of the bill would enable the agency to respond to releases of such substances from underground storage tanks or when they pose a significant threat to human health.

There are an estimated 2.5 million underground storage tanks which would be subject to response actions under H.R. 5640. Assuming that 5 percent of the tanks have serious leaks during the next 15 years, and that all require cleanup, our worst-case estimate of the annual extra cost of the LUST (Leaking Underground Storage Tank) program is over $550 million. This yields a total of $8 billion over 15 years.

The bill provides both regulatory and response programs for LUST. Under the response program, to which the above estimate applies, it is important to note that we estimate 70 percent of all leaking underground storage tanks will be cleaned up by responsible parties. The $8 billion, 15-year estimate is limited to the 30 percent of all response actions paid for by the government.

Additionally, the bill gives us the authority to respond to any release of petroleum product that causes a significant threat to human health, regardless of its source. It is impossible to even begin to project a cost for this authority.

The regulatory portion of the LUST provision of H.R. 5640 also would have major financial consequences. We estimate that it will cost more than $26.5 million to establish a LUST regulatory program between fiscal years 1985 and 1988. This does not include the cost of enforcement, nor does it include the regulatory burden on the private sector, which we have not attempted to estimate. It merely reflects the expense of establishing and operating the regulatory program. However, with a universe of 2.5 million tanks, the cost of enforcing even a modest regulatory program could be staggering.

The LUST provisions of H.R. 5640 are particularly premature because most of our knowledge of the program is based on anecdotal information. We do not currently have complete data on the number of leaking tanks, the extent of contamination from the tanks, or how many are in need of cleanup. As a result, the Office of Toxic Substances has initiated a survey of underground storage tanks to determine the extent of the problem. The results will guide us in deciding what action is needed, if any, to abate the problem.

STATE SHARE

Major changes in the state role in the Superfund program would occur under H.R. 5640, particularly with respect to the share of remedial costs shouldered by states. Our greatest concern is that the bill, in transferring the responsibility for most operations and maintenance costs at remedial sites to the federal government, will create, in essence, a new perpetual entitlement program for the states, one with enormous fiscal consequences.

The language of H.R. 5640 with respect to state share is unworkable. In scrapping the current language, which requires states to cover all O&M costs after the first year, in favor of a requirement that the federal government provide 90 percent of O&M expenses throughout the life of the remedy, a policy dilemma arises.

On the one hand, it raises the question of whether the EPA must, in selecting a site remedy, set aside funds adequate to cover projected long-term O&M costs at the outset. If so, this will tie up larges sums of money early on that could be better spent cleaning up other sites. This O&M set aside is not built into our current cost projections.

On the other hand, if O&M funds are not identified at the time a remedy is chosen, this means the agency must rely on annual appropriations to cover these costs, eventually at hundreds of sites. Congress will find itself funding what will be an environmental entitlements program to the states forever.

Furthermore, federal payment of O&M expenses would set a bad precedent for other federal construction program. In most, if not all, other major federal construction programs, such those for highway and sewage treatment plants, the federal government pays for a major portion of the construction costs but none of the O&M costs. It has always been considered a state or local responsibility to take care of and provide funding for operations and maintenance.

Our best estimate of the drain in the fund represented by this shift, averaging the costs out over the entire existing National Priorities List, comes to $360,000 per site per year. Projecting 1,800 sites, the total cost of O&M over the next 30 years would exceed $11 billion.

H.R. 5640 would also impose a 50 percent or greater share of the remedial costs at a given site (as opposed to the usual 10 percent) only in cases where the site was both owned and operated by the state or one of its political subsidivisons. The existing law imposes the greater share on all state-owned sites regardless of who operated them. The probable cost to the fund of this change is $79 million per year.

ALTERNATIVE TREATMENT TECHNOLOGIES

In choosing a remedy, Section 107 of the bill, as amended, would require the administrator to select alternative treatment technologies to the maximum extent practicable, consistent with protection of health and the environment, based on various properties of the substances present at a site. Compliance with such a mandate would require a probable extra annual expenditure of $76.4 million.

TECHNICAL ASSISTANCE GRANTS

Section 110 of H.R. 5640, as amended, authorizes the EPA administrator to make grants to groups of individuals who may be effected by a release or threat of release from an NPL site to enable them to obtain expert advice and technical assistance. We project the probable annual cost to the fund of this provision to be $4 million.

It is important to note that we are already able to provide this type of assistance to citizen groups through cooperative agreements with the states. In one example, citizens at the Stringfellow site were able to obtain $25,000 through a cooperative agreement with the state of California. The state issued a request for proposals for professional services. The citizens reviewed candidates and picked the contractor. This state then issued the contract.

Thus, EPA already has the authority to provide this type of assistance to citizens using existing procurement procedures. There is no need to make Superfund into a grant-making statute.

FEDERAL CAUSE OF ACTION

Title II of the bill, one of its more controversial provisions, would establish a federal cause of action for the victims of releases of hazardous substances from facilities. The provisions of Title II establish stringent liability standards, set out narrow defenses, specify compensable damages, and set out various limitations and procedural guidelines.

I do not propose to discuss in detail the wisdom or lack thereof of such a provision, although it is interesting to note that the commission set up by Section 301(e) of the Superfund act to study the adequacy of existing legal remedies for the types of injuries addressed by Title II unanimously concluded that a federal cause of action was not appropriate. It should be noted that enactment of Title II would impose certain monitoring costs of EPA and larger but difficult-to-estimate transactional costs on society as a whole.

In this regard, by letter of June 28, 1984, to Chairman Robert Stafford, EPA General Counsel A. James Barnes indicated a number of serious reservations regarding a draft federal cause of action provision being circulated by the staff of the Senate Environment and Public Works Committee. The letter concluded with the following statement:

"In sum, we believe the consequences of adopting a federal cause of action along the lines suggested by the staff have not been well enough understood. Until such analysis has been performed, and considered, we believe that passage of legislation including such a federal cause of action would be permature and ill-advised."

While there are some differences between the cause of action provision circulated by the Senate staff and Title II, they are essentially similar and we believe that the above statement is equally applicable to Title II.

Finally, I would add that there continues to be considerable concern on the part of the Administration as to whether the federal government can be held liable under the proposed cause of action. I am not prepared to discuss the merits of this question, but can advise you that the Department of Justice is presently looking into this matter. If federal liability is possible, either directly to plaintiffs seeking damages under Title II, or indirectly through third-party indemnification claims against the United States by liable defendants, this may not only have serious budgetary implications, but may present grave problems for the federal government in implementing Superfund.

HEALTH EFFECTS STUDIES

Section 111 of the bill authorizes individuals and groups of individuals who may be exposed to hazardous substances to petition the administrator for health effects studies. These studies would be performed by the Centers for Disease Control, an arm of the Department of Health and Human Services.

CDC projects that the probable first-year additional cost of conducting such studies and/or publishing explanations for rejecting them would be $60 million.

CITIZEN SUITS

Section 301 of the bill authorizes citizen suits against persons violating any requirement in effect under Superfund, persons who contributed to or are contributing to the handling of any waste which may present an iminent and substantial endangerment to health or the environment, or against the administrator for failing to perform a non-discretionary duty under the act. It also sets forth procedural requirements relating to notice to the affected state, the administrator, and the alleged violator, jurisdiction, the administrator's right to intervene, and the cost of litigation.

Because there are so many mandatory provisions in H.R. 5640, the administrator could be subject to many suits. The irony of this provision is that the bill establishes a mandatory cleanup schedule which is impossible to meet, yet it holds the administrator liable for failing to perform this non-discretionary activity.

Citizens and the courts would be allowed to establish the cleanup agenda in these cases, even though failure to meet the deadlines could have been for reasons beyond the agency's control such as budget constraints, weather conditions, contracting difficulties, or the inability of the states to provide their share of the costs.

Defending against citizens suits would represent a drain on agency legal resources which could otherwise be used in enforcement actions against responsible parties.

In a related matter, EPA is an interested party in any suit brought against responsible parties at any site. Therefore, it would be in our best interest to monitor and participate in all suits brought by citizens against these parties.

This provision will force the agency to join most of the cases, regardless of their priority status with EPA, or regardless of whether the government has fully developed technical documentation needed to successfully prosecute the action. Thus, the provision will distort the agency's enforcement agenda, draining resources from our priority enforcement cases. Ultimately, the citizen suit provision will detract from the government's enforcement efforts. Cases will not necessarily be developed consistent with the public interest.

We calculate the additional costs which would be imposed on EPA by this section to be between $16.3 million and $46.4 million annually. These costs do not measure the disastrous disruption that would occur to the agency's planning, response and enforcement priorities.

TOXICOLOGICAL PROFILES

Section 109 of the bill requires the development of a minimum of 100 toxicological profiles of the most frequently found or most hazardous substances at priority sites, over a four-year period. According to estimates developed by the Centers for Disease Control, this requirement would cost between $6.25 million and $11.25 million each year during the four-year period necessary to comply.

NATURAL RESOURCES DAMAGE CLAIMS

Like the current law, H.R. 5640 authorizes natural resource damage claims, but limits them to a total of 6 percent of the annual Superfund appropriation. The present statute sets the limit at 15 percent. Assuming that claims at or in excess of the 6 percent ceiling will be received, we estimate a probable annual figure of $62.8 million will have to be allocated to these claims.

To date, four states have filed claims seeking a total of $2.7 billion for natural resources damages.

CHANGES TO THE HRS

Section 113 alters the provisions of the National Contingency Plan so as to require changes in the Hazard Ranking System used to evaluate sites. We project a probable total additional expenditure of $1.9 million as a result of this change.

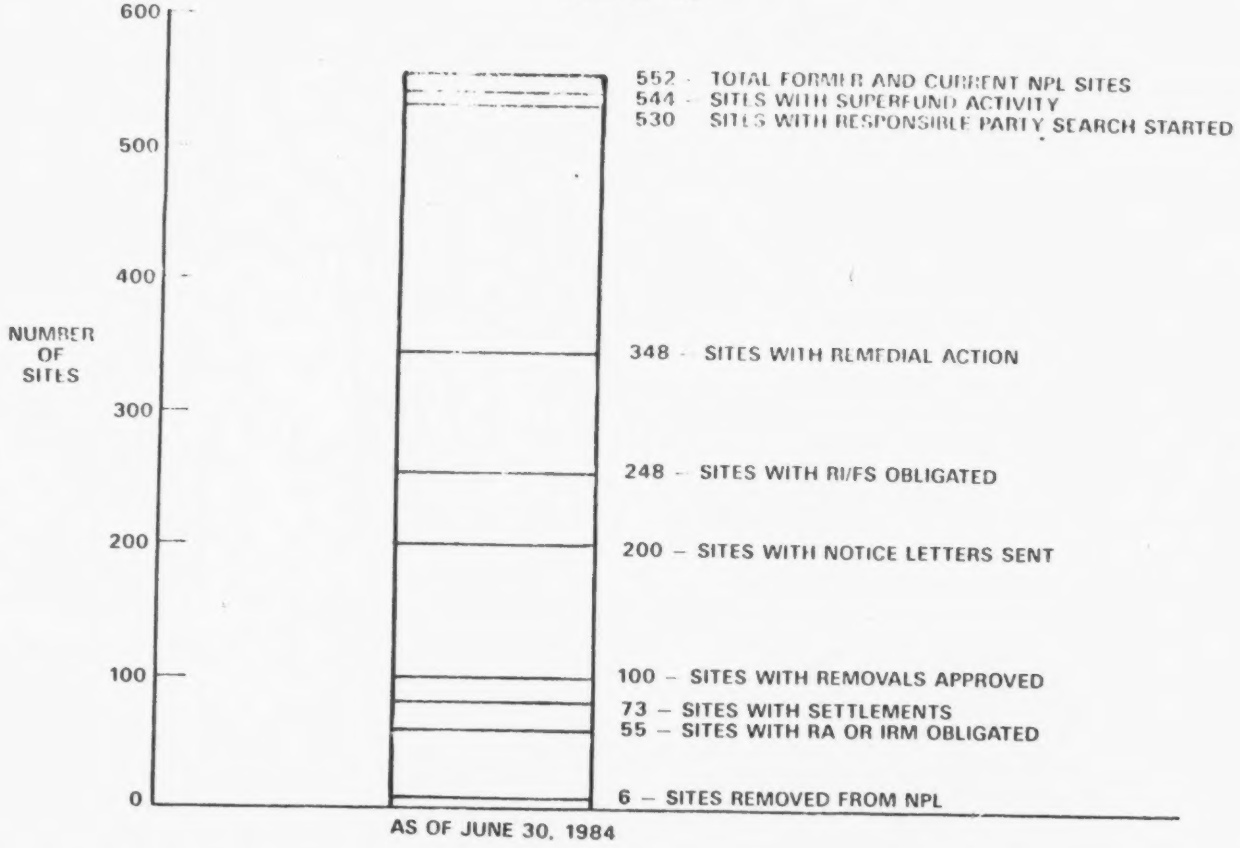
CONCLUSION

I cannot overemphasize my concern that the many add-on provisions of H.R. 5640 will have a significant impact both on EPA's ability to allocate cleanup resources under the Superfund program and to manage this program effectively.

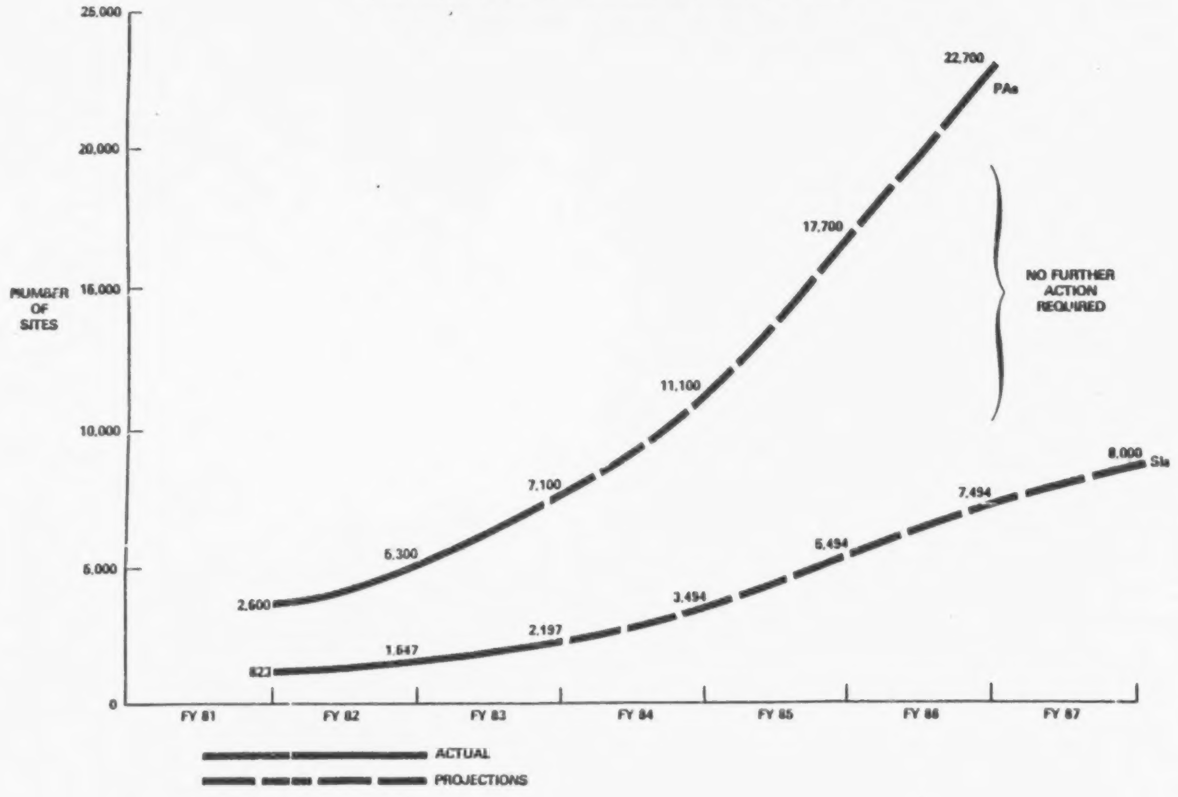
Certainly, the proponents of the bill are well intentioned, but I fear that the proliferation of new programs and responsibilities could actually lead us away from our shared goal of cleaning up hazardous waste sites as soon as possible. The momentum established during the past year and one-half is at stake here, as is the public's confidence of EPA to carry out the promises of Superfund.

I appreciate this opportunity to appear before the committee, and I will be happy to answer any questions you may have. Thank you.

SUPERFUND PROGRAM:
NPL SITES

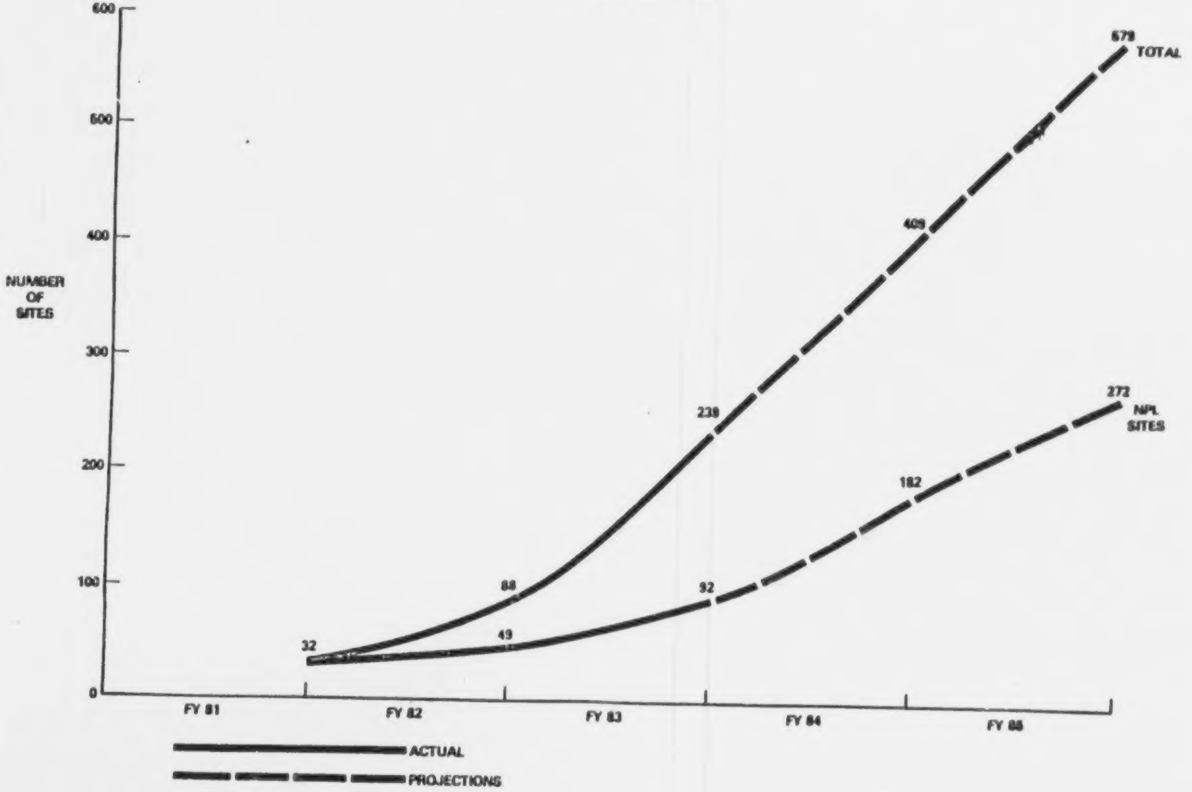


SUPERFU PROGRAM: PRELIMINARY ASSESSMENTS (PAs) AND SITE INSPECTIONS (SIs) COMPLETIONS

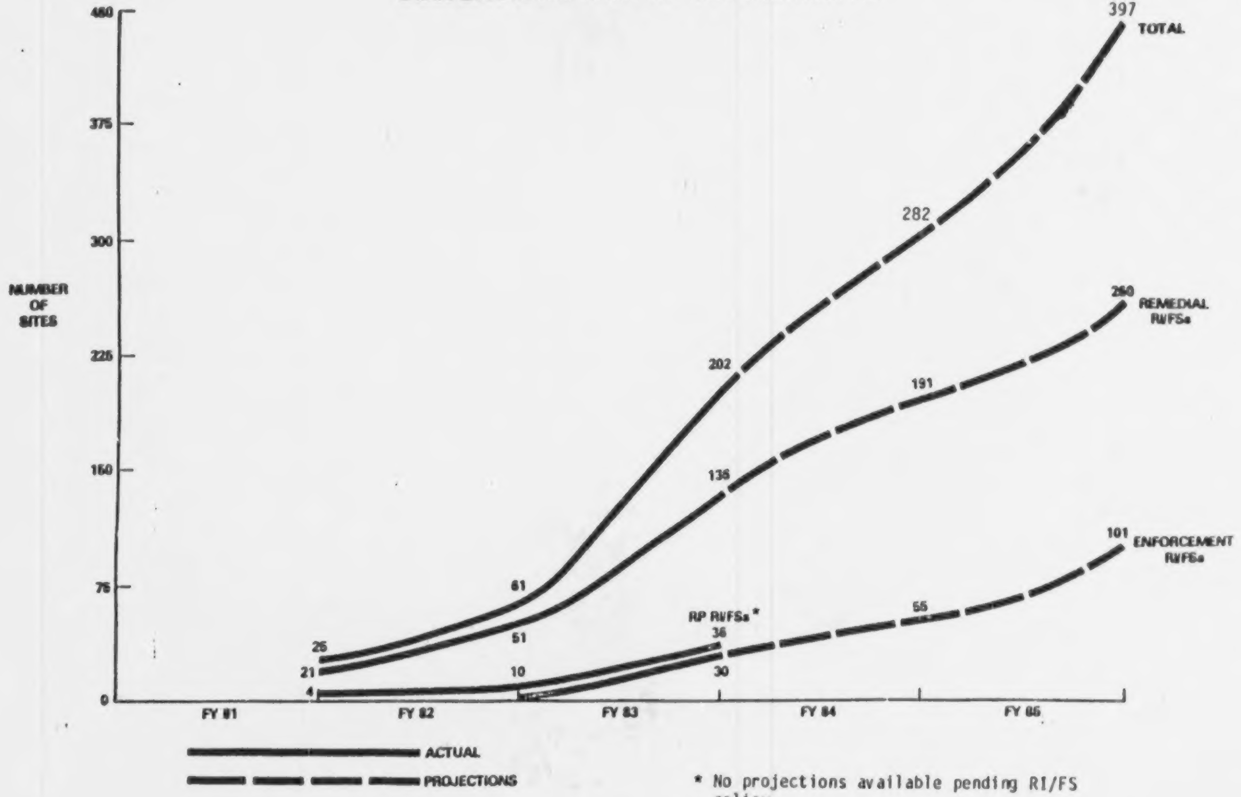


SORUCE: ERRIS SYSTEM

SUPERFUND PROGRAM: REMOVALS APPROVED

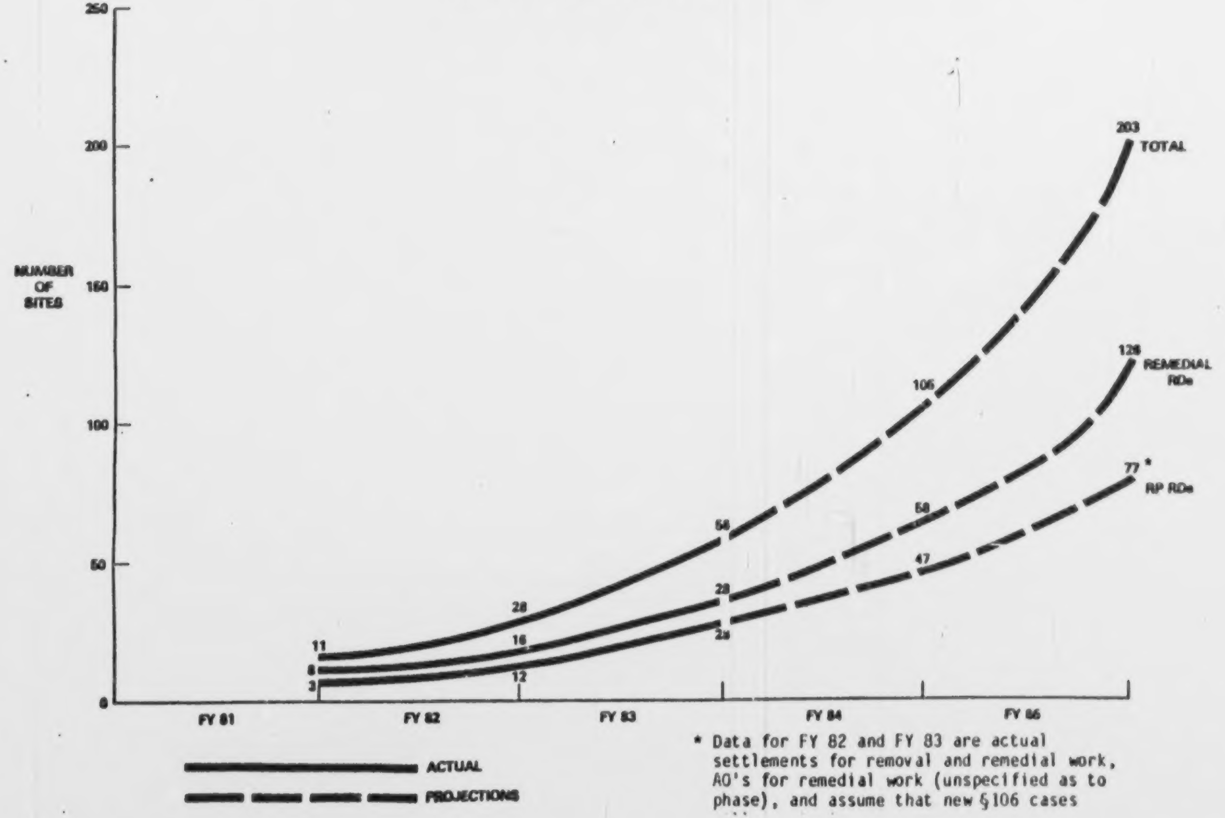


SUPERFUND PROGRAM:
REMEDIAL INVESTIGATIONS/FEASIBILITY STUDIES
(RI/FSs)
OBLIGATIONS AND RP SETTLEMENTS



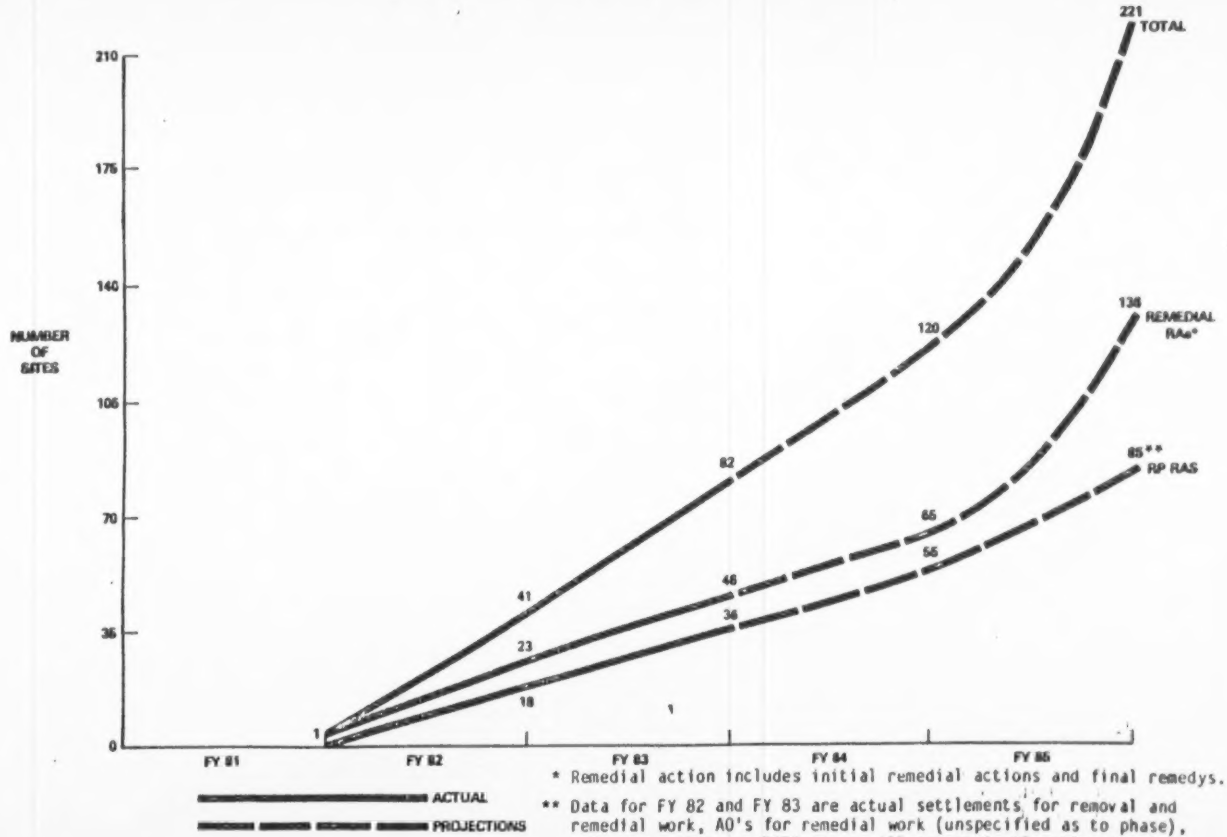
* No projections available pending RI/FS policy.

SUPERFUND PROGRAM: REMEDIAL DESIGNS (RDs) OBLIGATIONS AND RP SETTLEMENTS



* Data for FY 82 and FY 83 are actual settlements for removal and remedial work, AO's for remedial work (unspecified as to phase), and assume that new §106 cases

SUPERFUNL ROGRAM: REMEDIAL ACTIONS (RAs) OBLIGATIONS



* Remedial action includes initial remedial actions and final remedys.

** Data for FY 82 and FY 83 are actual settlements for removal and remedial work, AO's for remedial work (unspecified as to phase), and assume that new §106 cases will result in RP action in the

Mr. **Gibbons.** Mr. Thomas.

Mr. **William Thomas.** We all know what happens if you set all the food in front of a starving person, they may try to get it down, but it won't stay down very well. You can always throw money at a problem and always expect it to come out in the same ratio that you throw it at the problem. You have indicated that the majority of the funding will come from the feedstock taxes. I have some questions on that.

For example, added to the list in H.R. 5640 in the inorganic chemical column is the oxide of boron. My understanding is that the criteria that were originally used to compile the list taxable chemicals in current law were five particular criteria. There was a requirement that two of the five criteria be met to include the items on the original 1980 list. Oxidized boron was not included on that original list. Since that original list was composed, there have been onsite testings of approximately 700 sites.

I understand that there were discoveries in 9 of the 691 sites of oxidized boron and my assumption is that is the reason that boron trioxide has been included by the Energy and Commerce Committee on the list. Can you give me some idea in which way boron trioxide was associated in the dumps, was it combined with other chemicals? What were the circumstances of the 9 out of the 691 sites in which it was located?

Mr. **Lee Thomas.** I am sorry. I won't be able to give you a lot of specific information on this. You have the information that 691 sites were looked at. At nine we found boron trioxide. When we looked at a site in those 691, we looked at 15 substances, tested for 15 so it is in the context of those 15 at 9 sites that it showed up.

As to how much showed up, as to what concentrations, as to what the sites were like, as to whether they ended up as hazardous waste sites, I can get that information.

Mr. **William Thomas.** On a quantitative basis, 9 out of 691 is not very significant compared to most of the substances on the list. We are acquainted with the fact that boron trioxide is used in contact lens solutions and handsoap, the borax concept. My concern is that from our end, in looking for revenue, are we really justified in putting this particular chemical on the list because of its problems or are we putting it on the list because of the dollar amounts generated by the volume of boron trioxide that is produced in this country? Those are concerns that I have about other items added to the list.

If we are talking about putting together a revenue package, I think there ought to be some semblance of fairness in the way in which the burdens are allocated. I know a major user of boron trioxide is the fiberglass insulation industry and then it would be related in terms of a hazardous substance. But wouldn't it be more appropriate then to allocate a percentage of the production for that purpose? if we tax the entire production of boron trioxide, we are also taxing for its use in solutions that baby diapers are washed in and people clean contact lenses in. That doesn't seem an appropriate way to fund a project for purposes of cleaning up hazardous waste sites.

Any comment on that?

Mr. **Lee Thomas**. It is hard for me to respond to the boron trioxide. I know given the number of 9 out of 691, that would be pretty far down the list as far as substances found at these sites.

Mr. **William Thomas**. But in terms of volume of production, it may not be.

Mr. **Lee Thomas**. I understand the point well. I think that is a dilemma. One of the things that we are considering in the context of our report is trying to lay out whether there is a more sound rational basis for the differences as far as scheduling the taxes based on how often those substances are found, in what quantities, whether there is a relationship between toxicity of substances, a rational basis for structuring some kind of tax rate.

Mr. **William Thomas**. I see in the bill that aluminum is already treated differently, its tax rate is reduced for some rationale that Energy and Commerce felt was appropriate, that their rate is not similar to the other elementary materials that have been added to the list. They are treated differently.

Another in the petrochemical column that I am curious about in terms of the way you conceive the tax structure to work—xylene was on the list. It is on the list. It was separated in terms of derived from coal or gasoline. It comes off the refining process in terms of crude on the light end and some is used in the gasoline to up the octane, but some is used as a feedstock for detergents and other items.

Do you have any knowledge of the way in which the taxing process would work? I assume that xylene and all its components would be taxed coming out of the refinery, but if it was used as a feedstock item in the production of another product at a secondary production level, would the fact that xylene was a feedstock, would that produce a tax at that level as well? That if it is broken down in its derivative components within the category xylene, would they also be taxed when used?

Mr. **Lee Thomas**. I can't respond directly to that. I have staff that could respond to that issue. I would say that as far as the benzene, xylene, toluene area, that is an issue that Congress has dealt with as of late in other legislation indicating that they did not think it should be taxed.

Mr. **William Thomas**. One last question and perhaps this would require a response at a later time, but I do want a response. The powerhouse fuel exemption—I produce a lot of oil in my district and we do a lot of steam generation and tertiary recovery. Is there any understanding that this exemption for powerhouse generation would extend to crude producers as well?

Mr. **Lee Thomas**. I don't know. We can get you a response to that.

Mr. **William Thomas**. My concern is that as we are putting together this package, we have responsibilities. This is a way in which we produce a significant portion of the funds necessary regardless of whether it is the $5 billion, the $9 billion, or the $13.2 billion. The last thing I want to see is the drive for revenue to create a situation in which people are required to pay taxes that are really in no way related to the problem that we are dealing with. Those who clearly are part of the problem ought to pay and my position is they ought to pay through the nose, but for those who are not I think we ought to take some time to fully appreciate the list and perhaps, as suggested, add to the list those people who are clearly responsible, but not to simply go after particular chemicals in part because the volume out there produces the desired revenues.

I think that is absolutely the wrong way to approach this kind of legislation.

Mr. GIBBONS. The time of the gentleman has expired.

Are there other questions?

Mr. Frenzel.

Mr. FRENZEL. Mr. Chairman, I apologize to the witness for not being able to be here for his oral testimony. If my question has been covered, he should state it.

On page 14 of your testimony, there begins a section called "Federal Cause for Action." I suppose it is not strictly part of our responsibility. Yet the last time this bill was up, we had a very long discussion on this committee as to what the Federal liability was in this instance, and on page 15 you say that the commission that was set up by the Superfund enabling act concluded that a Federal cause for action was not appropriate.

Can you tell us what their rationale was as you understand it?

Mr. LEE THOMAS. I am going to ask Jim Barnes, our general counsel, to comment on that. I will make a general statement.

I did not in my testimony deal with some of the aspects of H.R. 5640 that have major implications for this country such as Federal cause of action. We have major reservations about where we are going with that. I tried to concentrate on those aimed at the revenue issue so I haven't gotten into that yet. That doesn't mean we are not concerned about it, Mr. Frenzel, and Jim Barnes can comment on your specific question.

Mr. BARNES. The 301(e) study group did conclude that there were some changes in State tort law that would be desirable to be fair in its application to people who had sustained toxic tort injuries. Particularly on their list was the problem of the statute of limitations. There is now a small number of States that have not yet adopted the so-called discovery statute of limitations so that some people would find the statute of limitations had barred their claim for a disease or injury that had developed over a long period of time.

In sum, the 301 study group said what we ought to do is make some changes in tort law at the State level looking both to amending statutes of limitations, and the States considering whether they wanted to adopt, say, strict liability for those that handle the hazardous waste the group felt that letting the law develop at that level on toxic torts, just as it has on the product liability area over some period of time, was a desirable way to go rather than imposing a new across-the-board standard of liability at the Federal level.

Mr. FRENZEL. OK. You have given a good reason to use the State system and how the State system might be improved. What was the reason that they didn't want to go to a Federal system, because it was a new and untested area of law or what?

Mr. BARNES. No; I think they felt that it was an area where there was a lot of development going on through the common law and in statutory changes in the State law, and we really ought to let that movement work its way out. I think the feeling was when you look back over the history of product liability law, that over a period of time that judges and State legislators found their way to an end that was a reasonable balance between protecting individuals who were injured through no fault of their own through actions of others in society and allowing them to recover from those that were the actors.

Mr. **Frenzel.** Is there any Federal liability in title II?

Mr. **Barnes.** I am sorry. I missed that question.

Mr. **Frenzel.** Is there any Federal liability in title II?

Mr. **Barnes.** Well, one of the questions that the Department of Justice is currently looking at is the relationship between H.R. 5640 and the Federal Tort Claims Act, because I think there is some concern on the part of the Department of Justice that the waiver of sovereign immunity that is inherent in Superfund and in H.R. 5640 might create strict joint and several liability for the Federal Government for these actions. I think that if you want to embark on that course we ought to do it knowingly and understanding the full ramifications of that before we——

Mr. **Frenzel.** Thank you. We were very nervous last time that we would be levying taxes that may be used to pay claims. We wanted the tax money to be used to clean up the mess and we had real concerns about that. You still sense a danger of this bill and the enabling legislation, perhaps, creating some liability?

Mr. **Barnes.** Yes; I think the addition of the Federal cause of action accentuates that concern. I understand that the Department of Justice is currently preparing a letter to send up to Congress addressing that issue.

Mr. **Frenzel.** If you have any influence, we would be glad to have that process speeded up.

Mr. **Barnes.** OK.

Mr. **Frenzel.** Thank you, Mr. Chairman.

Thank you very much. My time has expired.

Mr. **Gibbons.** Mr. Gephardt?

Mr. **Gephardt.** Thank you, Mr. Chairman.

Mr. Thomas, the last time we did this bill, I viewed it with interest, but not with near as much interest as I have this time, because as you know, in the ensuing 5 years, we found a considerable amount of dioxin in my district.

I must say that you have done, in my view, a good job in trying to work with that situation, and I appreciate all that you have done. The issue here is a national one, and one that I want to pay particular attention to try to do the right thing.

When you sit in the living room with somebody who has a problem that is causing them not only physical but psychological damage, you realize the importance of what we are doing here.

I think that we have to try our best to make the right decisions for the millions of people that depend on all of us to do the right thing. I want to get to the issue of the amount of money because I am continuing to be confused here as to exactly what it is you are saying.

In your testimony, you say it will take $8 to $16 billion to clean up the 14 to 2,200 sites that will ultimately be included in the NPL. Then you say that the bill intends to provide you with $9 billion over 5 years, but then you talk about the additional responsibilities, and then you talk about the $7.4 billion over 5 years that alone—that the loan comes from the mandatory scheduling provisions.

Then, when I look at the chart, you have 7,000 in the mandatory schedule and you have $3.2 billion in underground storage tanks. Am I to understand that the $5 billion that you think will continue the present program is contained in that $7 billion which you say would be required to do the same thing with the mandatory schedule, is that correct?

Mr. **Lee Thomas**. That is correct.

Mr. **Gephardt**. So, there is an add on of $2 billion, because of the mandatory schedule provisions?

Mr. **Lee Thomas**. That is correct, and that is because of the increased pace that the mandatory schedule builds in as well as some of the changes in the operation and maintenance between State responsibility and Federal responsibility.

But you are correct, the comparison would be between the $7 billion and the $5 billion.

Mr. **Gephardt**. You have got on the top of those bars O&M 415, State costs 434. Is that the same as what you are talking about?

Mr. **Lee Thomas**. That figure is the $7 billion. The O&M is $415 million, that is the $7.4 billion we were talking about over the 5 years. The O&M significantly builds up beyond that, as you add sites.

Mr. **Gephardt**. So the mandatory schedule adds about $2 billion and it does it just because it makes you move faster along with these sites, is that the problem?

Mr. **Lee Thomas**. That is right.

Mr. **Gephardt**. All the costs that are attendant to that are in terms of personnel and construction costs?

Mr. **Lee Thomas**. That is largely what is in that cost figure with the mandatory schedule.

Mr. **Gephardt**. The $3.2 billion for underground storage tanks, did you state an opinion in the hearings in the Energy Committee on whether or not you thought that was a problem and that effort should be taken on or not? Are you saying that you just don't think we ought to take that on?

Mr. **Lee Thomas**. My suggestion on underground storage tanks is, we need to deal with that other than in the context of this legislation. We need to deal with it, first, in determining what the extent of the problem is, and who is currently responding to it between States, a number of which have regulatory and response programs dealing with gasoline and petroleum, and private parties that are currently responding to it.

We have a survey under way in EPA, largely related to the regulatory program, whether we need a regulatory program for underground storage tanks. We already had one for hazardous waste. This is the broad array of storage tanks.

Let's complete the survey and find out what is currently being done by States and private parties before we decide to pick up that responsibility under the Superfund Program. We have those authorities and we also have used on some occasion our RCRA authority, section 7—003 hazard enforcement authority, as it relates to leaking from underground storage tanks.

Mr. GEPHARDT. Let me ask about the question of how and when the money is to be used. Do we have a little problem in trying to project ahead as far as 5 years in terms of how much money we need and is there a way to resolve it as we did in the last bill you mentioned. We had a loan authority or something in the last year. I am a little troubled, frankly, with trying to set a figure now for the next 5 years.

And I am just wondering, is there any alternative in your view to doing that, maybe coming back more often, maybe setting up some kind of loan authority, because I just don't think we know enough today to know what the costs are going to be in the next 5 years.

Mr. LEE THOMAS. I think that is a good point. Even the projections I am giving are based on a whole series of assumptions. We have learned an awful lot during the last several years, and will learn a lot more in the next several years, as we deal with the sites.

It is difficult to talk about how much a site is going to cost, how long it will take for operation and maintenance on average per site, what will be the impact of trying to meet the environmental standards, the impact of alternate technology for disposal.

I agree, it is extremely difficult now to project what those costs are going to be beyond 1 or 2 years out, much less 5 years out.

The option you laid out may be something we ought to look at, that is, can we establish what we think would be a funding level with the potential for going beyond that, either with a shorter authorization period and review sooner than 5 years, or some kind of authorities as you indicated.

Mr. GEPHARDT. I think it is something we need to look at. I think the first couple of years, due to no one's fault at this table, we wasted some time and made some mistakes, and there are mistakes that are still being made, especially at the State level, and maybe even at the Federal level as well.

Hopefully, we are clearing some of those away, but I think we both share the view that this is a nationally urgent priority and that we need to do what needs to be done.

The American people want that to be done. I think we all share that view. I am just not confident that we can sit here with the change that has gone on in the last 5 years, that we can confidently come up with the right figure.

I would be happy to hear more of your thoughts expanded on what we could do to address this problem in perhaps a shorter or different kind of way, or time frame.

Thank you, Mr. Chairman.

Mr. GIBBONS. All right. I want to thank you for coming and helping us with this problem. Let me, for your own planning purposes and your staff purposes, say that we plan to start the markup on this next Tuesday, and we are going to need all the expert advice we can get from you.

We appreciate your cooperation and your whole attitude toward the situation. We want to work with you cooperatively in getting this done and we will be in touch with you.

Mr. **Lee Thomas**. Thank you, sir. We are ready to work with you any way you would like.

Mr. **Gibbons**. Thank you very much. I love that attitude.

Next, we have a panel of witnesses from the Hazardous Waste Treatment Council, and then we have Mr. Howard Hoffman; the National Association of Manufacturers; the Chemical Manufacturers Association; and the Sierra Club.

If you would come forward, gentlemen, the Hazardous Waste Treatment Council first, Mr. Fortuna.

STATEMENT OF RICHARD C. FORTUNA, EXECUTIVE DIRECTOR, HAZARDOUS WASTE TREATMENT COUNCIL

Mr. **Fortuna**. Thank you, Mr. Chairman.

My name is Richard Fortuna. I am executive director of the Hazardous Waste Treatment Council. The treatment council represents commercial hazardous waste treatment management firms and equipment manufacturers that believe in the primary use of treatment technology and the restricted use of land disposal methods in the management of hazardous waste.

The council represents 28 firms with facilities in 48 States and is the largest organization to represent the interests of commercial hazardous waste treatment firms.

I provided the committee with studies on the revenue aspects of Superfund, particularly the waste end fee system and various ways to raise revenues from other feedstocks. I will provide some summary observations at this time on those studies, the waste base fee system issue, and the exemption questions.

The council believes that the primary purpose of the revenue provisions must be to insure a stable and reliable source of funds for cleanup and emergency response. The council believes an expanded feedstock system is the primary means of insuring stable, equitable and adequate funding.

Because of diversity within the council, however, we have commissioned two studies to look at the merits of a waste end fee system.

While treatment firms such as those represented by the council are the purported beneficiaries of waste end fee systems, the treatment council membership believes that waste end fee systems are an unreliable method of raising revenue and have a strong potential to subsidize unpermitted and unsound environmental practices.

A waste end fee system is faced with fundamentally conflicting objectives: Raising revenue and limiting land disposal. The more successful one is at restricting land disposal, the less reliable the revenue collection.

We believe that the laudable environmental objectives of the waste end fee system should be reserved for the Resource Conservation and Recovery Act legislation, H.R. 2867, which passed the House by voice vote overwhelmingly last November, and which is pending in the Senate now.

Many States are relying on waste end systems to raise revenues for purposes of matching share requirements. We believe that the waste end approach should be reserved as a State level complement to the national feedstock law.

The council supports the feedstock provisions at a level between $6 to $9 billion over 5 years.

If a waste end provision is to be included, we believe that a substantial number of changes are necessary to insure a sound provision and one which does not conflict with the policy established under the RCRA amendments.

H.R. 5640's approach of applying a differential tax rate on the land disposal of wastes based upon their intrinsic hazard should be maintained.

However, the tax should be assessed and collected at the point of generation, rather than at the point of disposal, and should be imposed on all hazardous wastes that are generated and taken to land disposal or other facilities subject to the tax.

The tax structure, the council believes, must include underground injection facilities and be based upon net or net weight, not dry weight. As an October 1981 editorial from Chemical Week observes:

> There are a lot of unknowns when uncontrolled mixtures are exposed to underground conditions. The consequences of an error could be horrendous.

I think that the prophecy of the Chemical Week editorial was borne out recently, in May 1981, with the largest hazardous waste fine in history being levied on the failure of an underground injection facility at Vickery, OH, to the tune of $10 million.

The tax, we believe, must not be imposed if the waste is taken to a treatment facility that is operating in compliance with interim status or a final RCRA treatment permit.

This would include facilities such as incinerators and other thermal destruction or energy recovery facilities permitted as incinerators; treatment that results in the delisting of a waste; and other treatment and reclamation processes that have undergone permitting as a hazardous waste treatment process.

Presently, the bill taxes certain forms of land disposal, exempts certain practices, and is silent on others. I would like to conclude my remarks by reflecting on a request for several exemptions from the waste end fee system.

Due to the many regulatory exemptions under RCRA that allow as much waste, generators, and facilities to escape coverage as is subject to current regulation, and because of the changing scope and definition of hazardous waste, this provision must exercise special care to avoid granting financial advantage to hazardous waste practices that escape controls through present regulatory loopholes.

Many practices that are the environmental equivalent of midnight dumping and open burning are unpermitted and not subject to coverage.

This includes practices such as spreading hazardous wastes on roads to control dust, direct disposal down sewers, and burning wastes in industrial boilers, furnaces, and kilns without regard to demonstrations of proper destruction efficiency or the ability to limit toxic emissions.

H.R. 5640 currently exempts all biological treatment. What does biological treatment mean? I think unless the provision of biological treatment is clarified, you are going to have sedimentation and volatilization rather than destruction of hazardous waste.

There is another amendment included in the bill sponsored by Congressman Bliley which the council believes has the potential to allow the uncontrolled burning of hazardous waste to gain the same tax advantage that a proper hazardous waste construction facility would be allowed, and we think that amendment should be rectified to condition any exemption upon permitting.

The council would suggest and urges the committee, in order to ensure that the uncontrolled and unpermitted burning of hazardous waste and other unpermitted management practices are not subsidized through a waste end fee system, that any exemption from the fee provisions must be contingent upon the possession of a final RCRA permit or interim permit for that treatment process involved.

Thank you, Mr. Chairman.

[The prepared statement follows:]

STATEMENT OF RICHARD C. FORTUNA, EXECUTIVE DIRECTOR, HAZARDOUS WASTE TREATMENT COUNCIL

Mr. Chairman, Members of the Committee, I welcome the opportunity to appear this morning on behalf of the Hazardous Waste Treatment Council. In light of the many witneses this morning I have organized my presentation in summary form.

BACKGROUND ON COUNCIL

* represents commerical hazardous waste management firms and equiptment manufacturers that believe in the primary use of treatment technology and the restricted use of land disposal methods in the management of hazardous wastes

* represents 28 firms with facilities in 48 states

* is the largest organization to represent the interests of commercial hazardous waste treatment firms

COUNCIL PERSPECTIVE ON REVENUE ISSUES

* the primary purpose of the revenue provisions must be to insure a stable and reliable source of funds for cleanup and emergency reponse. All other objectives must be regarded as secondary

* an expanded feedstock system is the primary means of insuring stable and equitable funding

* while treatment firms are the purported beneficiaries of a waste-end fee system, the Treatment Council membership believes that waste-end fee systems are an unreliable method of raising revenue and have a strong potential to subsidize unpermitted and unsound environmental practices

* a waste-end fee system is faced with fundamentally conflicting objectives; raising revenue and limiting land disposal. The more successful one is at restricting land disposal, the less reliable the revenue collection

* the laudable environmental objectives of the waste-end fee system should be reserved for the Resource Conservation and Recovery Act (RCRA) legislation H.R. 2867, which passed the House by voice vote last November and which has been pending in the Senate for nearly 12 months

* many states are relying on waste-end systems to raise revenue for purposes of matching share requirements. The waste-end approach should be reserved as a state-level

complement to the national feedstock tax

* any actions taken under the funding provisions must not undermine the land disposal restrictions and treatment incentives of H.R. 2867, or reopen the loopholes that are closed by these amendments

FEEDSTOCK PROVISIONS OF H.R 5640

* Council supports the feedstock provisions at a level between 6-9 billion over 5 years

* the feedstock system can be expanded by including several hazardous substances found at "Superfund" sites but which are not subject to the feedstock fees. These include the asbestos, coal tar, 9 metals and the 4 fertilizers indentified in the Council's study that has been provided to the Committee

* to the extent that the increased feedstock rates raise concerns regarding international competetiveness, the provisions should be modified to insure that both feedstock imports and their product derivatives are subject to the tax

WASTE-END PROVISIONS OF H.R. 5640

* if a waste-end provision is to be included, a substantial number of changes are necessary to insure a sound provision and one which does not conflict with the policy established under the RCRA amendments (H.R. 2867)

* H.R. 5640's approach of applying a differential tax rate on the land disposal of wastes based upon their intrinisic hazard should be mainintined. However, the tax should be assessed and collected at the point of generation, rather than at the point of disposal, and should be imposed on all hazardous wastes that are generated and taken to facilities subject to the tax

* the tax sturucture must include underground injection facilities and be based upon net or wet weight, not dry weight. As an October, 1981 editorial from Chemical Week observes, "...there are a lot of unknowns when uncontrolled mixtures are exposed to underground conditions... The consequences of an error could be horrendous." (see attachment) This method of management must be restricted, and subject to taxation as any other land disposal method, although at a lower rate as reflected in 5640

* the tax should not be imposed if the waste is taken to a treatment facility that is operating in compliance with interim status or a final RCRA treatment permit. This would include facilities such as: incinerators and other thermal destruction or energy recovery facilities permitted as inicinerators; treatment that results in the delisting of a waste; and other treatment and reclamation processes that have undergone permitting as a hazardous waste treatment process

EXEMPTIONS FROM WASTE-END FEES

* due to the many regulatory exemptions under RCRA that allow as much waste, generators, and facilities to escape coverage as is subject to current regulation, and because of the changing scope and definition of hazardous waste this provison must exercise special care to avoid granting financial advantage to hazardous waste practices that escape controls through regulatory loopholes

* many practices that are the environmental equivalent of midnight dumping and open burning are unpermitted and not subject to coverage. This includes practices such as spreading hazardous wastes on roads to control dust, direct disposal down sewers, and burning wastes in industrial boilers, furnances and kilns without regard to demonstrations of proper destruction efficiency or the ability to limit toxic emissions

* in order to insure that the uncontrolled and unpermitted burning of hazardous wastes and other management practices are not subsidized through a waste-end fee system, any exemption from the fee provisions must be contingent upon the possession of a final or interim RCRA permit for the treatment process involved

* the EPA is already moving to close the loophole for industrial boilers, kilns and furnances by requiring them to be permitted as hazardous waste incinerators (see attached 7/20/84 "Environmental Reporter" article). The Council urges the consistent application of this policy throughout any waste-end provision that may emerge

chemicalweek

Editor-in-Chief	John B. Campbell
Managing Editor	Donald R. Cannon
Executive Editor	Donald P. Burke
Senior Editors	Meyer Lurie Herbert C. Short Homer Starr
Associate Managing Editor	Robert T. Martinott
Assistant Managing Editors	Sandra Edwards John W. Price, Jr.
Art Director	Robert P. McAuley
Assistant Art Director	Yvonne Leopold
Associate Editors	Kenneth Brooks (Technology) John M. Winton (Energy/Feedstocks)
News Editor	Joseph F. Dunphy
Assistant News Editor	Richard B. Roberts
Department Editors	
Companies	W. David Gibson
Environment	Lee Harrison
Finance/Economics	Gregory W. Miller
International	Albert H. Kislin
Management	William D. Kosman
Marketing	Patricia L. Layman
Markets	John Rivoire
People	Thomas M. Chesser
Research	Gordon M. Graff
Specialties	Alexander G. Dumas
Staff Editor	Richard J. Zanetti
Assistant Editors	Imelda R. Bruce Deborah J. Williams
Editorial Production Manager	Kathryn Muller
Editorial Production Assistant	Patricia Leonard
Business Assistant	Linda L. Nigra
Secretary to Editor-in-Chief	Laverne D. Wing
CW Newswire Manager	Richard B. Roberts

McGRAW-HILL SERVICES

Economics	Eric B. Herr
World News	Michael R. Johnson, director

Chicago, Wes Iversen; Cleveland, Arthur Zimmerman; Detroit, David Whiteside; Houston, Robert E. Lee; Los Angeles, Barbara Lamb; San Francisco, Margaret Ralston Drossel; Southeast, James Branscome; Washington, Robert E. Farrell.

Bonn, Robert Ingersoll; Brussels, James Smith; London, James Trotter; Madrid, Jules Stewart; Milan, Lois Bolton, Jeff Ryser; Moscow, Peter J. Hann; Paris, John Templeman; Sao Paulo, Ernest McCrary; Singapore, Colin Gibson; Stockholm, Robert Skole; Tokyo, Robert Neff; Zurich, Laura Pilarski.

BUSINESS

Advertising Sales Manager	Howard M. Mager
Marketing Research Manager	Bertha Chase
Director of Business	James G. Methven
Billings/Statistics Manager	Astrid Chahmirian
Director of Production	Verna M. Retzlaff
Asst. Production Manager	Dale Kroll
Director of Circulation	Lynn Elliott
Manager, Buyers' Guide	Joseph A. Callahan
Associate, Buyers' Guide	Mildred Rimondi
Director of Services	Raymond F. Framed
Services Associate	Sylvia M. Larkin
Admin. Asst. to Publisher	Doreen A. Felis
Vice-President/Publisher	Stephen C. Croft

Beware the specialties fad

Large chemical companies seem to be tumbling over one another in the rush to get into specialties. The idea of putting more investment into high-value-added products often makes a lot of sense—especially, nowadays, to Wall Street. But such trends can become faddish. Specialty markets are no easier to conquer, and hold, than commodity markets. If herd instincts are allowed to overrule sound business analysis, the result can be financial disaster.

We have recently reported strong, new moves into specialties by such U.S. companies as Arco, Dow, Du Pont, Celanese and Sun. But the warning seems timely this week because of a story in the current issue (*p. 40*). It tells how the trend to specialties in the U.S. is being echoed abroad. Imperial Chemical Industries, Rhone-Poulenc, Shell and Solvay are among the European giants that recently have elected to move downstream into such businesses as high-fashion yarns, engineering plastics, agrichemicals, and pharmaceutical intermediates.

No doubt most of these moves have been well thought out. But it would be ironic if overcrowding in specialties produced the same problems of overcapacity and low profitability that have plagued European producers in commodity chemicals. Beyond that, our story offers some caveats that are just as applicable in the U.S. as they are abroad:

1. A market that looks promising may turn out to be ephemeral. A market for a specialty intermediate, for example, can fade quickly when a major user finds a way to integrate.
2. Growth rates for specialties are not independent of the economy as a whole. A textile finish can be a big disappointment in a declining market for textiles.
3. High growth rates do not guarantee high profits. Entry of just one more good competitor in a narrow market can be devastating to prices and operating rates—particularly if that competitor does not have to recover high development expenses.
4. A management style attuned to commodities won't work for specialties. It takes a certain mind-set and organization to achieve continual development of new products to fit new applications.

All of this may seem overly obvious, but that is the curse of wisdom. □

What goes down the well

Now that it's getting so costly to dump chemical wastes on land sites, will more and more companies turn instead to deep-well injection?

That question is beginning to worry some environmentalists (*p. 28*). That means the safety of deep-well injection may soon be an issue with which the chemical industry will have to grapple.

The worry is that the chemicals may contaminate an aquifer that is, or could sometime be, a source of drinking water. The aim of the technology is to pump the waste down to a level far below any such aquifer and into a geologic formation that will prevent its upward migration. And the Environmental Protection Agency, not to mention several states, has established rigorous standards intended to ensure that the geologic formation selected for a well is suitable and that waste does not leak out of the well pipe on the way down.

But there is a loophole. There are no rules to limit what can be pumped down such a well. There is nothing to prevent a well-owner from pumping down highly concentrated organic fluids—of whatever toxicity—or, for that matter, cyanide or chromium solutions.

In theory, that's no problem. But in fact, there are a lot of unknowns when an uncontrolled mixture of synthetic organic chemicals is exposed to subterranean heat that can reach a couple hundred degrees. Gases can form, backpressure can develop, fluids can find fissures, and an aquifer can become poisoned.

In a good system, that's unlikely. But the consequences of an error could be horrendous. That is why some companies that rely on deep-well injection have, on their own, decided to restrict what they inject. In some cases, that means further—and perhaps costly—pretreatment of the wastes.

We think that such caution in the handling of toxic chemicals is both wise and affordable. And we would like to see the industry take the lead in making such caution a matter of standard practice. Loopholes are fun, but there is more mileage in a demonstrated sensitivity to environmental uncertainties. □

Hazardous Waste

EPA PLANS TO APPLY INCINERATOR STANDARDS TO BURNING WASTE IN INDUSTRIAL BOILERS, KILNS

Industrial boilers burning hazardous wastes would be required to meet generally the same standards as those set for incinerators under a plan being developed at the Environmental Protection Agency, according to an agency document.

The proposed strategy would require industrial boilers and kilns burning hazardous waste to meet a 99.99 percent destruction removal efficiency standard for toxic organics, which is the same standard required for hazardous waste incinerators under current Resource Conservation and Recovery Act rules.

Metals, particulates, and hydrogen chloride emissions would be controlled by establishing fuel specifications or through the use of air pollution control devices, according to the EPA document.

The Office of Solid Waste, which proposed the plan for the new RCRA industrial boiler rules, was told to go ahead with it by EPA Deputy Administrator Alvin L. Alm on June 27 at an "options selection meeting," an agency official told BNA. Options selection meetings were instituted by EPA Administrator William D. Ruckelshaus to enable top officials to approve strategies for major regulations early in their development (Current Developments, Jan. 13, p. 1577).

According to a June 27 briefing document on the plan, EPA intends to propose the regulation in the spring of 1985. The document said that the rules would close a loophole in current regulations that allows companies to burn hazardous waste or hazardous waste mixed with fuel without controls.

EPA is expected soon to propose rules that would close part of that loophole by controlling the burning of hazardous waste in non-industrial boilers (Current Developments, June 1, p. 145).

Stragegy for Rule Proposal

Under the planned regulatory strategy, industrial boilers burning toxic organic compounds would be divided into two classes for permitting purposes. The first group would consist of boilers that meet specific design and operating conditions aimed at ensuring 99.99 percent destruction efficiency, according to the EPA document.

These boilers would not be required to conduct a test burn to establish the burning efficiency of the boiler in order to receive a permit, the document said.

Design features needed for a waiver of the test-burn include an atomized waste firing system and fire gun orientation, according to the document. Operating conditions include no waste firing during start-up and shut-down; maximum waste firing rate; mininum boiler load; specified range for excess combustion air; and maximum frequency and duration of boiler "upsets."

The class I boilers would be required to meet certain fuel specifications for heat value as well as for metal, ash, and chlorine content, according to the document. In addition, the rules would prohibit burning certain "acutely toxic" waste, such as diozin, it said.

Trial Burns for Class II Boilers

Trial burns to establish destruction efficiency would be required for permitting in all class II boilers that do not meet the specified operating and design conditions, according to the document.

Test burns also would be required for boilers burning fuels that do not meet EPA specifications for metals, ash, or chlorine, it continued. These boilers would be required to conduct a test burn to establish the efficiency of air pollution control devices, it said.

Kilns would not be able to receive waivers of the trial burn requirement because there is insufficient data on the types of design and operating conditions for various types of kilns that would ensure 99.99 percent destruction efficiency, according to the EPA document.

The document said that EPA expects to issue permits for about 500 boilers and kilns with trial burns and about 1,000 under the quicker, less costly approach of design and operating standards.

"Environment Reporter"

July 20, 1984

POINT . . . AND COUNTERPOINT

Difficult to Base Expanded Superfund on Existing Feedstock Taxes

by Joel S. Hirschhorn,
Office of Technology Assessment

What is good about the current feedstock tax that finances Superfund? It is simple to administer because relatively few companies are affected and the data on which the tax revenues are calculated and forecast are reliable and easy to obtain. But there are two important deficiencies with this approach.

First, it is inequitable. Only a handful of companies pay almost all the revenues. Many companies generating hazardous wastes do not now pay the Superfund tax. Based on 1981 data from EPA, there were about 14,000 hazardous waste generators nationwide, and more wastes and generators are becoming regulated. Even as they do, it is likely that about 1 percent of the generators will account for about 90 percent of the wastes, as is now the case. On the one hand, taxing 140 generators would increase by a factor of 10 the number of companies paying most of the Superfund feedstock taxes. Collecting taxes from 140 firms—or even from 10,000—is not a major obstacle.

Another deficiency with the feedstock tax is that there is no "feedback" effect on waste management decisions because there is no logical link between feedstocks and the amounts or types of hazardous wastes generated, nor any link to the quality of waste management. Such feedback is as important as the primary goal of generating funds. If those who pay a Superfund tax are also those who make critical waste management decisions, then fewer uncontrolled

Hirschhorn *Continued on page 20*

Joel Hirschhorn, Ph. D., is a Senior Associate with the Congressional Office of Technology Assessment, where for several years he has directed studies on hazardous waste. The views expressed here are solely those of the author and are not necessarily those of OTA.

The Waste End Tax: An Idea Before Its Time

by Linda Greer,
Environmental Defense Fund

It seems that the *only* thing that hasn't gone wrong to date in the Superfund program is collecting money for the fund. The program—notorious for its problems with the pace and extent of cleanup, poor administration, and bad public relations—at this time can point with pride *only* to its revenue-raising provisions. Superfund was designed to raise from industry about $25 million per month for cleanups, and it consistently has met that goal.

Four years into the program, some of those working on Superfund reauthorization appear to be taking for granted this isolated accomplishment. They have their sights set on a larger agenda which they believe would improve the ongoing management of hazardous wastes under RCRA while at the same time generating income for Superfund. Specifically, these parties would like to alter the Superfund taxing mechanism to tax waste directly rather than taxing feedstock chemicals.

Their concern about the adequacy of the RCRA program is very well-founded. Our rate of waste generation continues to grow, and most wastes continue to be disposed in the land. Regulations currently on the books neither prohibit nor substantially inhibit these practices, despite a widespread consensus that putting wastes in the land is simply unacceptable from a long-term perspective of protecting human health and the environment. The regulatory inadequacies are very frustrating to all of

Greer *Continued on page 21*

Linda E. Greer is a scientist with the toxic chemicals program of the Environmental Defense Fund in Washington, D.C., where she has been working on hazardous waste issues for two years. She has an M.S. in environmental sciences and engineering from the University of North Carolina in Chapel Hill.

It is now widely accepted that Congress is very likely to extend Superfund's taxing provisions beyond the current 1985 authorization. But will funds continue to be raised via the front-end feedstock approach in the current law? Or will taxes instead be assessed on a waste-end basis reflecting volume and perhaps degree of hazard of wastes disposed? The issue is sure to be divisive both among industry interests and among other groups, as well as between those interests. Four perspectives on the funding issue*:

Superfund Needs A Strong Tax Base

by Richard L. Hanneman,
National Solid Waste
Management Association

Public confusion between two federal programs dealing with hazardous waste management—the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund)—has been a major obstacle to achieving the goals of the RCRA program. Blending the missions of the Superfund and RCRA programs, implicit in the suggestion of a waste-end tax to finance CERCLA, risks aborting the Superfund program as well.

Fundamentally, RCRA and Superfund have different objectives. For RCRA, protection of human health means use of appropriate hazardous waste management technologies and incentives for waste reduction, reuse, and recyicing. For Superfund, protection of human health means remediation of mismanaged wastes and spills.

We must be very careful not to confuse the objectives of RCRA and Superfund. Legitimate public fears surrounding Superfund cleanup sites have compromised the RCRA program by making siting of new facilities more difficult. Let us not now burden Superfund with the tasks of the RCRA program.

Recognizing the many technical complexities of the Superfund program, the prime deficiency is quite simple—money. We often criticize government for "throwing money at a problem," but for Superfund, more money is the chief need. The $1.6 billion dollars authorized in 1980 for the first five years of the

Hanneman *Continued on page 22*

Dick Hanneman is Director of Government and Public Affairs with the National Solid Waste Management Association, a Washington, D.C., trade association representing the waste service industry.

Waste-Based Fee System: More Problems Than Promise

by Richard C. Fortuna,
Hazardous Waste Treatment Council

At the time of Superfund's enactment, there was considerable debate regarding the funding mechanism for the program—a system based on specific chemical feedstocks, as was actually adopted, or a more general system of fees on generation of hazardous wastes?

As a member of the House Energy Committee staff during consideration of Superfund, I felt then that the waste-based fee system, while having substantial theoretical and equity appeal, raised too many uncertainties over Superfund funding stability and implementation. The debate is far more informed than it was in 1980 as a result of the work of the Office of Technology Assessment (OTA) and others, but it still appears that a fee system based on taxation of waste management activities rather than feedstocks would create more problems than promise for the Superfund program.

Several proposals before the House of Representatives would change the current feedstock system to one which collects fees on the basis of hazardous waste management practices. While differing slightly

Fortuna *Continued on page 23*

Rich Fortuna is Executive Director of the Hazardous Waste Treatment Council, which represents firms promoting treatment alternatives to land disposal of hazardous wastes. For four years toxicologist to the House Commerce Subcommittee with jurisdiction over RCRA and Superfund, Fortuna has an M.P.H. from the University of Michigan School of Public Health and a B.S. in zoology from Michigan. The Council is examining the many facets of the funding issue and will issue a formal position soon.

**The Chemical Manufacturers Association, representing the interests most affected by the funding question, did not respond to repeated efforts to elicit their views in time to participate in this exchange. Chemical industry perspectives will be reported in-depth in future issues.*

Hirschhorn ***Continued from page 18***

hazardous waste sites requiring Superfund attention would be created in the future. The feedstock tax, in contrast, does not directly drive the national waste system to more waste reduction and to alternatives to land disposal.

With a waste-end tax, those who produce less waste would pay less tax, and those who treat rather than land-dispose their wastes also would pay less tax, or none at all. That approach would move the national system in a direction that diminishes the need for Superfund. To be effective, tax rates would have to be great enough to shift critical waste management decisions. The costs of the least desirable waste management options would have to be made great enough that alternatives now perceived to be too costly would become more attractive. For example, waste treatments often cost from $50 to $200 more per ton than land disposal. But increased disposal costs today will be far less than the very large clean-up costs years from now if Superfund cleanups continue to be required.

If we anticipate that the current Superfund program will be continued and perhaps even expanded after the feedstock tax expires in 1985, then both the equity and "feedback" issues become more important. Expansion of Superfund is likely because of increasing recognition of the extremely large scope of the Nation's uncontrolled site problem. An alternative to the feedstock tax, such as the waste-end tax, merits examination. (It should be noted that as of October 1, 1983, the Post-Closure Liability Trust Fund, also established under the Comprehensive Environmental Response, Compensation, and Liability Act, is financed by a $2.13 per ton tax on hazardous wastes delivered to a permitted disposal facility.)

Can a waste-end tax provide sufficient revenues? This too depends on the tax rate, and on how much wastes are generated. A cautious, conservative analysis of recent EPA data shows the feasibility of a rate which, while not overly burdensome, would provide the desired feedback effect. For example, taking the lowest end of the possible range of waste generated in 1981 of 90 million metric tons (probably a relatively low level reflecting the depressed economy), assuming that only half is land-disposed (which is consistent with data obtained for wastes actually land-disposed that year), and assuming that 80 percent of those wastes are considered highly toxic (also consistent with data), then about 35-million metric tons of waste annually could be taxed at $10 per ton to match currently-generated annual revenues.

Congressional debate on extending and expanding Superfund may lead to a doubling or tripling of the program's funding. If so, rates of $20 or $30 per ton could result. There is a concern that changes in management practices resulting from the feedback effect will lead to a drop in both wastes taxed and Superfund revenues. This concern can be addressed in two ways. The tax rate can be scheduled to increase over time, or a much-reduced feedstock tax could remain in effect, or both.

No individual or company wants to pay more taxes, and no tax approach is free of inequities or implementation difficulties. However, cleaning up toxic wastes is strongly supported by the public, and a waste-end tax spreads the burden more fairly than the feedstock tax. Will increased waste management costs be passed on to consumers of products which by their manufacture produce wastes? Yes, and this is equitable because consumers are a critical part of the waste generation system and, here too, economic and marketplace feedback effects are socially desirable.

Waste-end tax spreads burden more fairly than feedstock tax.

There are, of course, issues and problems that should be discussed, debated, and resolved. Consider these four.

First, it is attractive to use the degree-of-hazard concept and have a waste-end tax rate structure that reflects differences in the level of hazard of wastes and management options. EPA is now greatly improving the quality of the national data base on hazardous wastes, and it may be feasible to find a simple two- or three-category system to accomplish this goal. It may be necessary to clearly define what is meant by land disposal.

Second, some states already have introduced waste-end taxes. There will be concerns in those states about federal preemption or excessive tax burdens on industry. Providing grants to states from Superfund is one option.

Third, some want to levy a waste-end tax at disposal facilities (there are fewer than 1,500 land disposal facilities) rather than on waste generators. In this case, taxation might not be felt directly by the generators making the critical waste management decisions. The availability of new computer data bases can make the taxing of generators more easily enforced and verified. These data bases convert available, region-specific information on manufacturing plants into reliable waste generation data. Taken together with maturing federal and state record-keeping efforts, increased midnight dumping can be revealed and curtailed.

Fourth, there is a reasonable concern in industry that, although the costs of land disposal may be increased substantially, capital investment and R&D needs stand in the way of shifting to waste reduction and waste treatment alternatives. One remedy may be to use some portion of Superfund to support capital investment and R&D targeted to these alternatives.

Historically, this is an unusual opportunity to use direct economic incentives to complement regulations in achieving national environmental goals. With a waste-end tax it becomes possible, to some extent, to integrate Superfund and RCRA programs by taxes doing more rapidly what regulations and their enforcement (e.g., prohibitions against land disposal) may do over time. Moreover, the burden of cleaning up the Nation's uncontrolled hazardous waste sites is generally perceived to be one of the most critical environmental needs. It is difficult to conceive of keeping the current feedstock tax for an expanded Superfund program. ☐

Greer *Continued from page 18*

us. Nonetheless, this dismal situation does not necessarily translate into a justification for changing the financial underpinnings of Superfund to a waste-end tax.

The waste-end tax must be closely examined to ensure that it does not create larger problems than it solves. There is a fundamental question about whether such a system can *reliably* raise an adequate amount of money for the Superfund. After all, the cleanup problems of this country loom large before us, with an estimated 16,000 potential problem sites, 536 ranked priority sites, and only five sites totally cleaned-up so far. EPA itself estimates that the $1.6 billion will clean up a maximum of 176 sites. With the average remedial action estimated to cost between $5 million and $10 million, we need a large amount of money in the near future, and we need certainty that the money will be there when we need it.

'Waste-end tax no magic solution to waste problem. It poses significant problems.'

If the advocates of a new tax system can prove that their proposal will reliably raise money for the fund, then a waste-end fee has more than superficial appeal. However, the little data we have to go on in this area suggest that the idea may be premature. We are likely to have substantial problems generating revenue through this scheme. Here are the facts.

Eleven states have instituted waste-end fees for their state Superfunds. Of the five states which made projections on the amount of money they planned to raise (California, Missouri, New Hampshire, New York, and Ohio), all report shortfalls, from a modest (but significant) 10 percent in California to a whopping 93 percent in New Hampshire. The *average* shortfall in these states was nearly 50 percent, a very serious shortfall indeed. Florida now is switching from its waste-end fee to a feedstock fee for its state superfund because of its revenue shortfall. Others are considering similar switches.

An examination of the experiences of these states reveals two major problems: inadequate records to predict accurately hazardous waste generation and management and significant non-reporting and under-reporting by the regulated community. States found that the sources of reporting information available to them—manifests and biannual reports—are not sufficiently detailed for their taxing purposes. Every state which undertook a waste-end fee tax system therefore has had to develop additional reporting requirements.

The states then experienced revenue shortfalls despite the additional reports they required. California observed a 28 percent decline in reported waste volumes between 1981 and 1982. New York currently anticipates a 59 percent decline. Explanations for these declines range from the desirable (increased recycling of wastes) to the undesirable (under-reporting of on-site wastes, increased midnight dumping)—but in either event, the undesirable result was insufficient revenue for the fund.

These two problems would occur at the federal level "in spades" should a waste-end fee be imposed. EPA has no better data on individual waste generation and disposal than these states—probably much worse. Given EPA's performance to date, it is not clear that the federal government would have the interest or ability to impose additional reporting requirements. And, enforcement is not EPA's strong suit. We should not expect EPA to enforce the requirement that waste generators/disposers pay a fee when it cannot even produce compliance with groundwater monitoring requirements almost two years after those regulations became effective. The number of collection points in the waste-end fee system would be many times the 765 collection points currently used in the feedstock system.

If the feasibility questions of a waste-end tax can be answered satisfactorily, a set of policy issues then must be addressed. These issues concern the desirability of such a tax in light of its likely secondary impacts on RCRA. Specifically of concern here is the possibility that the tax system would force RCRA and Superfund to work against each other and create a basic conflict of interest between the two programs. There would be an inherent conflict in the goals of raising the money needed for Superfund and the goals of decreasing the generation and land disposal of hazardous wastes—to the extent that we are successful in the latter, we decrease the ability to raise funds for cleanup in the former.

For example, a waste-end fee system which charges more for wastes landfilled than wastes incinerated would be greatly affected by a decision on the part of the RCRA program to ban the landfilling of a large class of incinerable wastes. EPA will be phasing out the use of landfills for many wastes over the next 54 months, should RCRA be reauthorized as currently set out in H.R. 2867. The agency would be put into a position of losing money for cleanup operations by taking appropriate regulatory action.*

These policy issues point to the numerous implications of the waste-end fee. They argue strongly for a close look at possible ramifications in the RCRA and Superfund programs and for an examination of several types of waste-end fees, assuming the feasibility problems are successfully addressed.

A waste-end fee tax is not a magic solution to the waste problem. It poses significant problems which must be comprehensively and systematically analyzed before enacting the tax. Such a rigorous review has not yet been presented in the debate on the issue. Following the example provided for us by connoisseurs of fine wine, we should not adopt this idea before its time. ☐

****Significantly, this conflict could be reduced somewhat by taxing the actual generation of the waste rather than its disposal. However, the so-called emerging consensus on the waste-end fee would probably not support such an approach for reasons which are instructive to explore. Large generators currently support the waste-end tax because they would not pay tax on the millions of tons of waste they burn in industrial boilers. If the generation of the waste is taxed, they would pay. If the land disposal of waste is taxed, they do not.***

Hanneman *Continued from page 19*

program clearly will be inadequate to the task. In the first three years, only five sites have been cleaned up, and work has started on only 125 more. Yet, EPA has identified 536 "priority" sites and lists about 15,300 sites requiring further examination. The public wants action. After a sluggish start, EPA finally seems to be responding. The challenge for Congress will be to provide the resources necessary to finish the job.

If assuring adequate funding for Superfund is the prime objective, we should not sacrifice that objective to objectives of other programs. We should insist on a stable, reliable, and adequate funding source for Superfund. The present feedstock fee has proved to be simple to administer and a steady revenue producer, and it has imposed a minimal and broadly-shared burden. The Internal Revenue Service needs to keep track of only about 650 corporate taxpayers in order to collect about $250 million dollars a year. The tax represents only one-tenth of 1 percent of the annual revenues of American chemical companies. This small tax burden has virtually disappeared as an infinitesimal increase in the consumer cost of goods manufactured from chemical feedstocks.

Compare this to the uncertain impact of a waste-end tax. Besides offering the financial incentives to reduce, reuse, or recycle, a waste-end tax would provide economic incentives to evade the tax, both legally and illegally. A waste-end tax would increase the economic incentive for industries to seek a political solution by legislatively exempting their wastes or by seeking regulatory delistings. Any reduction in the volume of wastes so classified as taxable hazardous wastes would require an even higher levy on those wastes which remain classified as hazardous. Serious inequities among the industries would likely arise as a result. Additionally, certain industries would be disadvantaged depending on whether and how a "degree of hazard" scale could be incorporated into the tax rate. One of the major reasons Congress adopted a feedstock fee rather than a waste-end fee in 1980 was the relative immaturity of the RCRA regulatory program and the possibility—indeed the fear—that a new waste-end fee might provide an incentive for noncompliance. A great deal of progress has been made in the past three years in identifying and tracking wastes within the RCRA system—but enough?

Crucial decisions also remain on basic questions such as the definition of "solid waste." The RCRA reauthorization bill soon to clear Congress charges EPA with new responsibilities in terms of listing and delisting hazardous waste. Already, the determination of which materials are to be wastes and which of them are hazardous wastes is a decision with enormous economic consequences. Adding additional tax liabilities to this equation would further increase the importance of this decision. It would intensify pressure on regulatory decisions of how wastes will be characterized and when in the process of producing a waste the material will be defined as a "waste," and it may well paralyze EPA in a surge of delisting petitions filed by those seeking to escape a waste-end tax.

Is Congress prepared to revise tax rates upward every year? Can industries still producing wastes bear these additional taxes?

There also are practical administrative questions such as the vast differences between the universes defined as "hazardous" by federal regulations and those of the various states. States with programs more stringent than the federal program in terms of defining "hazardous waste" would find that their industries become big-time taxpayers compared to manufacturers in less responsible states. In the real world, it may be impractical to pay taxes on federally-defined wastes only. This in turn would provide an incentive to states to actually reduce the scope of their hazardous waste regulatory programs in order to avoid financing the Superfund cleanup in other states.

States which have adopted waste-end fees have experienced administrative problems. Earlier this year Florida repealed its tax after realizing only $16,000 in taxes in 1982, with a collection cost of $50,000 to $70,000. California has increased its tax rate at least twice, yet revenues consistently fall short of expectations.

Still, proponents proudly proclaim that placement of the tax on the waste generator rather than earlier in the production process more equitably exacts the levy on those producing the problem. With the additional amount of the tax, likely to be a substantial increment, they argue, waste generators will have a strong additional economic incentive to modify production processes to reduce waste generation or reuse or recycle their wastes. No one can doubt the power of such economic incentives. But the answer is not quite so simple.

As serious as these reservations about a waste-end tax might seem, they all pale in significance compared to the question raised at the outset: Would a waste-end tax compromise the main objective of Superfund—to raise enough money to finish the cleanups? However the waste-end tax would be restructured, the prime requirement is that it raise at least $250 million per year. This is the bottom line. This is where making the Superfund taxing mechanism do double duty to achieve the RCRA goals of waste reduction comes a cropper.

Proponents of the waste-end tax argue that its chief benefit is that it will reduce the volume of hazardous waste being generated. What if it does? Success in achieving this laudable RCRA goal has dire consequences to the notion of considering a waste-end tax to fund Superfund. To the extent that the incentive succeeds for RCRA, it fails Superfund. If the amounts of hazardous waste being generated decline, the Superfund tax revenues realizable also will shrink. Whether Congress is ready to revise the tax rates upward every year or whether the industries still producing wastes can bear these additional taxes are important questions to be addressed.

While a waste-end Superfund tax presents these serious questions, we can take some comfort that the RCRA program is beginning to function as its authors envisioned. Waste generators are reacting to the increased costs of treatment and disposal of their hazardous wastes by changing production processes to reduce waste generation and by recycling or recovering many of the wastes which they cannot avoid generating. Earlier this year, the Monsanto Chemical Company reported that for 1982 the company was able to save $8.2 million in waste disposal costs using a combination of waste reduction and recovery projects. When the final permitting standards are required, the economic incentive of regulatory compliance will be even that much stronger and consequent waste reduction that much greater.

A second concept sometimes associated with a waste-end fee also merits attention. Some proponents argue that waste generators should pay on the amount of hazardous waste that they generate (perhaps including a degree of hazard scheme); others would take the process a step further and build in additional incentives to direct the wastes to particular technologies. Such a step increases by an order of magnitude the questions and concerns with a waste-end tax itself. Questions of equity arise: are the wastes of certain industries less capable of "treatment" to avoid or minimize taxation? And there are the questions of sufficient revenues if the universe of taxable wastes is reduced still further and tied to an even more rapidly-shrinking tax base. Few people realize that there are only 430 hazardous waste disposal facilities in the country—fewer than the number of CERCLA taxpayers under the present feedstock arrangement, but, for the most part, representing far smaller companies. The entire commercial waste service industry, for example, is only a $1-billion a year industry. Those who would have us tax hazardous waste landfills out of existence ignore the fact that only 3 percent of the hazardous wastes disposed of go to hazadous waste landfills. Obviously, this entire question needs careful scrutiny.

In summary, RCRA is finally beginning to solve the problems for which it was intended. Superfund should do likewise. We must not sacrifice the need for an assured source of substantial revenues for Superfund cleanups to a clever ploy to reduce industry's total tax liabilities by shifting from a feedstock to a waste-end tax. It just might turn out like the old shell game. When we go to find the Superfund monies under the walnut shell after the sleight-of-hand artist manipulated them on the tabletop, we just might find that there is no money under *any* of the shells. Let us not mix up RCRA and Superfund, but let's get on with both of them. ☐

Fortuna

Continued from page 19

on specifics, these proposals have nearly identical objectives:

- Maintain stable Superfund funding for remedial and emergency response and for victims compensation for at least 10 years;
- Provide additional resources to fund a more comprehensive program;
- Decrease the volume of hazardous waste generated, and make fees collection more equitable; and
- Create disincentives for the land disposal of hazardous wastes.

There is intuitive and theoretical appeal to the direction of these proposals regarding the equity of the fee system and the need to relate fee imposition to waste generation and management decisions. If the system is to fund remedial and compensation activities, the basis of funding will have to be expanded in some manner to reliably meet the increased demand. The need to expand the funding base as a matter of equity is apparent when one examines the evidence from several multiple-generator Superfund sites: In the Chem-Dyne case, for example, of several hundred generators, only a handful currently are paying Superfund feedstock fees.

The House proposals are tabbed "waste-based" fee systems. However, none of the proposals introduced would impose fees on the actual volume or type of waste generated. Rather, every step in the act of managing the hazardous waste—such as storage, transportation, and form of waste management and disposition—would be taxed *except* the act of generation and the amount of waste generated.

These types of proposals pose several significant problems and, by their structure, may defeat many of the very desirable objectives they seek to accomplish. First, it is difficult if not impossible to see how every phase in the act of waste disposition can be assessed a fee and still remain manageable. Hundreds of potential combinations of waste storage, transportation, disposal, treatment, and recycling would be taxed at different levels, complicating tax calculation and rendering enforcement virtually impossible in many situations. Second, the proposals impose different fees on the basis of whether wastes are managed on the site of the generator or shipped off-site, with the latter assessed a higher fee. It is ironic that higher fees would be imposed on the sector which, according to a recent EPA study, manages less than 5 percent of the generated wastes. Third, the proposals would impose little or no tax on the "recycling" of hazardous wastes, yet make no attempt to define the scope of permissible recycling activities. Currently, "recycling" constitutes activities such as the unpermitted and uncontrolled burning of hazardous wastes in industrial boilers, kilns, and furnaces, a distinction maintained in the pending redefinition of solid waste (48 Fed. Reg. 14484, 4/4/83).

Beyond the specifics of these proposals, any waste-based fee system that relies on the fees from waste disposition faces still other obstacles. The objective of maintaining stable Superfund funding and creating financial incentives for decreased reliance on land disposal may well work against each other. Because the highest fees are placed on land disposal, if adequate fees are not collected, EPA may be forced to allow certain land disposal practices to continue in order to maintain Superfund levels. In short, waste-end taxes may force RCRA's immediate needs to prohibit certain wastes from land disposal to be played-off against the future Superfund needs. As a remedy for the potential revenues shortfall, some say EPA could simply increase the tax as necessary. But it is difficult to imagine Congress' delegating to EPA its responsibility for establishing tax policy.

In addition, several states have already tried various forms of waste-based systems to complement the federal feedstock system and fund their own programs. Many of these systems—which appear largely to be generating insufficient funds in any event—would likely be pre-empted by a federal system such as those contained in the current proposals.

An indirect subsidy of an activity which is polluting groundwater

Illinois' recently instituted waste-end tax makes an important point about the choice between tax and regulatory policy as a means of better protecting public health. Originally, Illinois was poised to institute a land disposal tax five times higher than the tax on treatment, with no tax on proper recycling. As a result of intensive lobbying efforts by land disposal interests in the state, the final version presented to the Governor virtually eliminated the differential between treatment and land disposal and imposed an unprecedented tax on the reclamation and recycling of hazardous wastes. This example points up the perils of relying on taxes, which can be quite arbitrary, as a means of accomplishing a desired public health goal such as land disposal restrictions, rather than using direct regulations to ensure that the means to the desired goal are based on objective and compelling findings of the risks to public health from the continuation of certain land disposal practices.

Just as the waste-end fee systems attempt to relate decisions about hazardous waste management to fees that would be payed under Superfund, they cannot be viewed in isolation from other legislative and regulatory activities affecting the reliability of any waste-end system. For example, legislation before the Congress would prohibit or restrict land disposal of hazardous wastes.

Reauthorization of RCRA is already directed at several of the major objectives of the waste-end fee proposals—particularly decreasing the volume of hazardous waste generated, and restricting or prohibiting wastes that can be placed into land disposal facilities. One must ask—If certain wastes are to be specifically prohibited from several if not all forms of land disposal, why is there a need to concurrently impose taxes to accomplish this same purpose?

Regarding EPA's proposed redefinition of solid waste, no other single event could more dramatically alter and forestall the flow of revenues into the

Superfund account than this proposal. The waste-end proposals, particularly those based on waste disposition fees rather than waste generation fees, assume that the current types and volume of wastes subject to RCRA coverage will only expand. This assumption may prove to be the Achilles' Heel of any such waste-end system. The current redefinition of solid wastes, which defines the universe of hazardous wastes subject to regulatory coverage, is in the process of broad review. If the proposed redefinition were to emerge in final form without change, it would exempt from the definition and in turn from taxes:

- The burning of hazardous wastes in commercial or on-site boilers, kilns, and industrial furnaces on the basis that they do not constitute hazardous waste management. In 1981, more than 20 million tons of hazardous wastes were burned in boilers and the like without regard to destruction efficiency or emissions, while only 292 million gallons were incinerated in that same period under stringent destruction efficiency requirements;
- All reclamation at the original plant site where the materials are returned to the original process, regardless whether the wastes were kept in an unlined surface impoundment;
- All reclamation done by a generator, even if the wastes must be transported to another plant site for introduction into the manufacturing process;
- All reclamation by a person other than the generator when the reclaimed material will be used ultimately by a person other than the reclaimer;
- A wide range of hazardous waste sludges and by-products, irrespective of the manner of reclamation; and
- Certain storage situations even where the storage is for speculative reclamation purposes.

One example of the perverse incentives that would be established by a waste-end tax in combination with the current proposed redefinition of solid wastes: a facility maintaining large volumes of toxic material (which would otherwise be classified as hazardous wastes) in an unlined surface impoundment and contaminating groundwater would not be engaged in hazardous waste management so long as the toxic material were reintroduced to the original production process. In turn, it would not have to pay any waste-end tax because it was engaged in reclamation exempted by the redefinition of solid waste.

In effect, that would amount to an indirect subsidy of an activity that is polluting groundwater. Unless there are substantial changes in both of these proposals, they will collectively constitute the most notable environmental pig in a poke to ever come down the pike.

Regulatory rather than tax policy should be invoked as the primary means of protecting public health and the environment. Any waste-end proposal should focus on maintaining and enhancing funding stability for the cleanup and compensation program. To the extent that a waste-end system can complement regulatory policy in this regard, it should focus on types and volumes of wastes generated rather than on every other step in the act of waste management.

While this approach would add additional collection gates to the funding system, the only way to equitably increase funding of the program is to require participation by all who generate. Moreover, primary consideration should be given to an expansion of the wastes subject to the feedstock tax, with perhaps some modification of the current fee levels on certain feedstocks. ☐

Coming in the January 1984 issue of The Forum . . .

- *How Uncle Sam Values Human Health Risks*
- *Acid Rain Precursor Trends—The Policy Implications*
- *The Courts, The Congress, and the Clear Water Act*
- *Upholding Legality of Superfund 'Joint and Several'*
- *. . . and more*

FRED C. HART ASSOCIATES, INC. • CONSULTANTS
1110 VERMONT AVENUE, N.W., WASHINGTON, D. C. 20005 • (202) 223-5621

February 27, 1984

Mr. Richard Fortuna, Director
Hazardous Waste Treatement Council
1919 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Rich:

Six days ago you asked us to develop information on alternatives to the current CERCLA tax structure that could raise $1.8 billion in revenues. Due to the extremely short time frame this matter has been addressed by focusing on several very specific questions:

Are there chemicals or feedstocks that are not taxed currently which have been identified as contaminants at sites on the National Priorities List (NPL)?

We reviewed Hazardous Waste Site Descriptions, National Priority List, Final Rule (Publication Number HW-8.1) and Proposed Update (Publication Number HW 8.2). From this review we identified substances which are found in NPL sites and which are untaxed. The major group of untaxed substances identified at NPL sites is metals. There are nine metals, ranging from aluminum to vanadium, which appear as contaminants at 160 NPL sites. In many cases, five or six metals are identified. Zinc, lead, copper and cadmium are particularly common contaminants.

Two other untaxed substances were identified at NPL sites: coal tar and asbestos. Coal tar is a feedstock from which a variety of chemicals are made, including almost all of those used in wood treatment. Creosote, a coal tar distillate, is listed as a contaminant at 34 NPL sites.

Asbestos is identified at seven sites--three mines and four waste sites. In each case, it is a major contaminant. One of these sites is the top priority site in Arizona, involving a multi-million dollar relocation prior to cleanup. Asbestos is a naturally occurring mineral, the crystalline form of sepentine.

Are there industries identified with sites on the National Priorities List whose feedstocks or product is not currently taxed?

Our review of the NPL identified several industries that fit this criterion. Because of the time constraint, we focused on mining and fertilizers. Mining and its associated processing industries, smelting and refining, are involved with a considerable number of NPL sites. Mines are identified as the definite or probable cause of contamination at 17 NPL sites. Twenty-three other sites have unknown sources of metals which might be from mines. Fifteen smelters and refiners, some of which are combined with mining or milling operations, are also NPL sites.

Feedstocks to the fertilizer industry are exempted from CERCLA taxes under the present statute. The Hazardous Waste Site Descriptions identify that 5 - 6 sites as probably or definitely caused by fertilizers. Wastes from fertilizer manufacture may also be present at many sites with unknown sources of inorganic or organic hazardous substances. Table 1 shows a categorization of the NPL sites described in the EPA documents.

How much revenue might be raised by taxing additional feedstocks under CERCLA?

From our review of the Hazardous Waste Site Descriptions, the substances set forth in Table 2 were identified as potential additional feedstocks. This list served as the basis for estimating a range of revenues that might be collected from the production of these feedstocks. Sales and production data for these substances are presented in Table 3.

We chose four tax rates, from 0.5% to 2.0%, to illustrate a range of potential revenues. The revenues were estimated using the sales data in Table 3 and are shown in Table 4. We have provided several pieces of information for comparative purposes:

- According to a recent EPA report, Superfund Task Force Preliminary Assessment (Phase I), the current CERCLA tax rates were established so as not to exceed 2% of a substance's sales.

- In 1982, tax rates per sales dollar for selected, currently taxed feedstocks averaged 1.13%. Only a portion of the feedstocks were included in this average, however, because data were not available for most of the inorganic substances. The available data are shown in Table 5.

- Finally, using the production data in Table 3, we have estimated revenues using the rates contained in HR 4813. These are shown in Table 6.

What increase in current CERCLA rates would be necessary to finance a $1.8 billion (annual) fund?

The current CERCLA tax rates were developed to generate a $900 million fund over several years. The government's FY 1984 estimate of tax revenue is $273 million. Using this estimate as a basis, it would be necessary to increase the current rates by a factor of about 6.6 to generate $1.8 billion annually from the same feedstocks. It must be noted, however, that such an estimate requires some very restrictive assumptions:

- No change in relative tax rates.
- No major change in the level of economic activity.
- No shift in the utilization of feedstocks.

I hope this information is helpful to you. The Tables follow as attachments. If you have any questions, don't hestitate to call.

Sincerely,

FRED C. HART ASSOCIATES, INC.

Steven L Albert

Steven L. Albert
Office Director

SLA:me
Attachments
F073

Table 1

Categories of NPL Sites
(some have more than one waste or industry type)

Pesticides	46
Mines	17*
Fertilizers	6
Organics Industrial or unknown)	≅ 250
Inorganics (acids, cyanides, etc.)	63
PCBs	74
Wood Treatment	34
Metals - manufacturing by products or scrap recycling	111
Metals - smelters or refiners	15
Dioxin	8
Metals - unknown source	23
Coal - Coke conversion	2
Coal gasification	2
Utility	1
Coal Mines	1

* 14 are metals, 3 are asbestos

Source: Hazardous Waste Site Descriptions, National Priority List, Final Rule (Publication No. HW-8.1), Proposed Update (Publication No. HW-8.2)

Table 2

Possible Additions to the CERLA List of Taxable Substances

Aluminum
Asbestos
Cadmium
Copper
Iron, pig
Lead
Manganese
Uranium Oxide
Vanadium
Zinc
--
Ammonia (75%)*
Nitric Acid (75%)*
Phosphoric Acid (95%)*
Sulfuric Acid (67%)*
--
Coal Tar

---

*Approximate percent of production going to fertilizer manufacture, currently exempt.

Table 3

Production and Sales of Potential Feedstock Additions in 1982

Substance	Production (Metric Tons)	Sales (Billion Dollars)
Aluminum	3,300,000	$5.485
Asbestos	63,500	0.025
Cadmium	1,007	0.002
Copper	1,140,000	1.67
Iron, pig	43,341,000	1.257
Lead	512,000	0.289
Manganese	608,000	0.018
Uranium Oxide	10,100	0.849
Vanadium	4,100	0.053
Zinc	300,000	0.255
--		
Ammonia*	9,560,000	1.300
Nitric Acid*	4,030,000	0.510
Phosphoric Acid*	667,000	DNA
Sulfuric Acid*	20,050,000	1.063
--		
Coal Tar	2,300,000	.360

DNA -- Data Not Available

Sources: Bureau of Mines, 1982 Annual Report
Fertilizer Institute

---

*Production and sales going to the fertilizer industry.

Table 4

Possible Revenues from Feedstock Additions
(Millions of Dollars)

	Tax Rate			
Substance	0.5%	1.0%	1.5%	2.0%
Aluminum	27.43	54.85	82.28	109.70
Asbestos	.13	.25	.38	.50
Cadmium	.01	.02	.03	.04
Copper	8.48	16.95	25.43	33.90
Iron, pig	6.29	12.57	18.86	25.14
Lead	1.45	2.89	4.34	5.78
Manganese	.09	.18	.27	.36
Uranium Oxide	4.25	8.49	12.74	16.98
Vanadium	.27	.53	.80	1.06
Zinc	1.28	2.55	3.83	5.10
--				
Ammonia	6.50	13.00	19.50	26.00
Nitric Acid	2.55	5.10	7.65	10.20
Phosphoric Acid	DNA	DNA	DNA	DNA
Sulfuric Acid	5.32	10.63	15.95	21.26

Coal Tar	1.80	3.60	5.40	7.20

DNA--Data not available

Sources: Bureau of Mines, 1982 Annual Report
Fertilizer Institute

Table 5

Effective Tax Rates on Sales
For Selected Feedstocks

Substance	Price/Ton	Tax Rate/Ton	Tax Rate/Sales Dollar
Acetylene	$880	$4.87	0.6%
Benzene	350	4.87	1.4
Butylene	420	4.87	1.2
Butadiene	770	4.87	0.6
Ethylene	260	4.87	1.9
Napthalene	530	4.87	0.9
Propylene	700	4.87	0.7
Toluene	400	4.87	1.2
Xylene	440	4.87	1.1
Ammonia	136	2.64	0.7
Chlorine	36	2.70	2.7
Phosphorous	1360	4.45	0.07
Nitric Acid	126	0.24	0.8
Sulfuric Acid	53	0.26	1.9

Sources: International Organic Chemicals Trade Association
U.S. Census Bureau

Table 6

Estimated Revenues From Feedstock Additions Under HR 4813 (Millions of Dollars)

Substance	Revenue
Aluminum	5.05
Asbestos	0.88
Cadmium	0.02
Copper	17.03
Iron, pig	12.57
Lead	7.65
Manganese	1.68
Uranium Oxide	0.02
Vanadium	0.01
Zinc	4.48
--	
Ammonia	71.13
Nitric Acid	1.13
Phosphoric Acid	DNA
Sulfuric Acid	6.22
--	
Coal Tar	9.04

DNA -- Data not available

CERCLA Funding Options

Prepared for:

Hazardous Waste Treatment Council

Prepared by:

FRED C. HART ASSOCIATES, INC.
1110 Vermont Avenue, N.W., Suite 410
Washington, D.C. 20005

Table of Contents

Page

Preface i

I. INTRODUCTION 1

II. HAZARDOUS WASTE FUNDING MECHANISMS 5

- A. Appropriations 5
- B. Feedstock Tax 5
- C. Waste-Based Tax 7
- D. Other

III. EXISTING FEDERAL HAZARDOUS WASTE FUNDING MECHANISMS 11

- A. RCRA 11
- B. CERCLA 11

IV. ALTERNATIVE FUNDING OPTIONS FOR SUPERFUND 15

- A. H.R. 3129 - Hazardous Waste Reduction Act of 1983 15
- B. H.R. 2627 - Hazardous Substances Response Act 18
- C. H.R. 1615 18
- D. S. 1779 - Hazardous Waste Reduction Act of 1983 20
- E. S. 860 - Hazardous Substances Response Act of 1983 20
- F. S. 816

V. STATE FUNDING MECHANISMS 21

- A. State "Superfunds" 21
- B. Goals 23
- C. Strong and Weak Points 24
- D. Revenues 24
- E. Impacts of Changes in the Federal Superfund 25

VI. DESCRIPTION OF EVALUATION CRITERIA 27

- A. Revenue Potential 27
- B. Administrative Feasibility 28
- C. Impacts on Other Federal/State Programs 28
- D. Equity Implications 28
- E. Economic Impacts 29
- F. Environmental Impacts 29

List of Tables

Page

Table 1 - Hazardous Waste Response Fund Receipts and Expenditures 4

Table 2 - Available Hazardous Waste Funding Mechanisms 6

Table 3 - Federal Hazardous Waste Programs 12

Table 4 - Comparison of Existing Hazardous Waste Funding Mechanisms to Proposed Legislation 16

Table 5 - Tax Rates for H.R. 3129 17

Table 6 - Tax Rates for H.R. 2627 19

Table 7 - Funding Mechanisms for State Superfunds 22

Table 8 - Funding Mechanisms and Evaluation Criteria 31

PREFACE

The Hazardous Waste Treatment Council asked Fred C. Hart Associates, Inc. (FCHA) to review the history and current status of the funding provisions of the Superfund program and organize existing data to assist the Council in making an informed decision on its position with regard to the reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or "Superfund"). This effort has focused on:

- reviewing the history and status of Superfund,
- reviewing the available funding mechanisms that could be used to fund Superfund,
- reviewing the status of existing Federal and State funding mechanisms,
- delineating the important evaluation criteria, and
- evaluating different funding options based on these criteria.

This analysis can best be described as a briefing document. FCHA has developed an overview of the options that face the U.S. Congress in reauthorizing CERCLA. Our analysis is an attempt to objectively structure some very subjective issues and to develop a framework by which the Council can evaluate these issues and provide material to the Congress in support of the position it chooses to take.

Richard Fortuna, Director of the Hazardous Waste Treatment Council, served as the Council's project manager. FCHA's project team was headed by Steffen W. Plehn. Steven L. Albert, Austin Smythe and Daniel Swartz comprised the rest of the project team.

I. INTRODUCTION

The authorization for appropriations and taxes under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or "Superfund" expires on September 30, 1985. Given an estimated 16,000 potential problem sites and estimated clean-up costs of between $5 and $10 million for each site, the current $1.6 billion ceiling on the Superfund will not provide the resources necessary to complete this task. If the U.S. Congress chooses to reauthorize CERCLA, one of the major issues will center on how to finance the Hazardous Substances Response Trust Fund (the Superfund). There are a number of mechanisms that can be used to finance the Fund, each of which must be evaluated according to the important criteria. This study reviews CERCLA, hazardous waste funding mechanisms, present Federal and state funding systems, proposed alternative systems, and the criteria by which these proposed should be evaluated.

Background

1. Legislative History

The signing into law of CERCLA on December 11, 1980 was the result of several years of effort by both houses of Congress and the Carter Administration to address liability questions, emergency response requirements, and the clean-up of discharges of oil, hazardous substances, and hazardous wastes. Although a number of bills were proposed in the 96th Congress, the resulting law is based on four bills:

- H.R. 85 (Representative Biaggi). To establish two funds -- $200 million fund for oil spills funded by a tax on petroleum and a $100 million fund for hazardous substances funded by a tax on chemical feedstocks and inorganic compounds.

- H.R. 7020 (Representative Florio). To establish a $600 million Hazardous Waste Response Fund for releases of hazardous waste and oil funded by appropriations (50%) and a tax on feedstocks and petroleum (50%).

- S. 1341 (the Carter Administration bill, introduced by Senator Culver). To establish a $1.6 billion fund for oil and hazardous materials of which $325 million would be comprised of appropriations and the remainder would come from taxes on petroleum and feedstocks.

- S. 1480 (Senator Culver and Senator Muskie). To establish a $4.085 billion fund for hazardous substances funded by approximately $500 million in appropriations and $3.5 billion in taxes on feedstocks and petroleum.

With the exception of S. 1341, all of these bills reached the floor. The House passed both H.R. 85 and H.R. 7020 and sent them to the Senate where they were referred to the Senate Environment and Public Works Committee. After the November 1980 election, during a special session of Congress, the Senate reached a compromise and amended H.R. 7020 by eliminating the entire content of the bill and inserting the Senate language.* The House took up the Senate's version of H.R. 7020 and passed it on December 3, 1980.

The resulting law -- Public Law 96-510 -- includes portions of all four bills. The law establishes response authority for the clean-up of a wide definition of hazardous substances. It creates two separate funds -- a $1.6 billion Hazardous Substances Response Trust Fund (the "Superfund") and a $200 million Post-Closure Liability Trust Fund. The Post Closure Liability Trust Fund derives its revenues from a $2.13 tax per dry ton of hazardous waste received at a waste disposal facility. This tax went into effect on October 1, 1983.

2. History of Revenue Collections and Expenditures from the Fund

The Hazardous Substances Response Trust Fund was created in early 1981. At the end of fiscal year (FY) 1983, the Fund had estimated receipts from all sources of almost $800 million. During the same period, EPA and other agencies have expended approximately $318 million. A summary of receipts and expenditures during the history of the Hazardous Substances Response Trust Fund appears in Table 1.

---

* The Constitution requires that all revenue bills originate in the House.

For FY 1984, the U.S. Congress has authorized $410 million in expenditures from the fund. On the revenue side, Congress has appropriated $44 million, and the government estimates it will collect $273 million in taxes, recover $24 million for cleanup costs, and earn $55.6 million in interest on the balance. If the agencies spend the $410 million in appropriations, the fund will have an estimated balance of $447.2 million at the beginning of FY 1985.

3. The Clean-up Problem

EPA has compiled a list of 16,000 sites on its hazardous waste site inventory. It expects to add another 6,000 sites to this inventory for a total of 22,000. For the Superfund program, EPA has placed a proposed 546 sites on the National Priorities List (NPL). The NPL may be expanded to 1,400 to 2,200 sites, depending on whether Federal sites are included. Estimates for clean-up of abandoned sites range from $5 - 10 million.[1] Assuming an average cost of $7.5 million per site, $4.095 billion will be required to clean-up all the sites on the National Priorities List. The NPL, however, includes only the actual expense of cleaning up a small portion of all sites and Superfund is also funding emergency clean-up of hazardous substance spills, R&D work, and a number of administrative and management activities. The revenue deficiencies of the current program are, therefore, considerable.

---

[1] "Supplemental Appropriation for Superfund Being Considered for Fiscal Year 1984, EPA Says," Environment Reporter, November 4, 1983.

TABLE 1

HAZARDOUS WASTE RESPONSE FUND RECEIPTS AND EXPENDITURES

	FISCAL YEAR (in millions of $s)				
Receipts	1981	1982	1983 (estimates)	1984	TOTAL
Transfers from Coast Guard	6.7	--	--	--	6.7
Excise Taxes	127.9	244	230.2	273[1]	875.1
Appropriations[2]	9.0	26.6	40	44	119.6
Interest Income	1.3	34.5	47.5	55.6[1]	138.3
Fines & Recoveries	--	2.3	9	24[1]	35.3
TOTAL	144.9	307.4	326.7	396	1175.0
Appropriations[2]	74.7	190	210	410	884.7
Expenditures	8.0	79.6	230.3	410[3]	727.9
Balance at End of Year	136.9	227.9	96.4	-14	N/A
Fund Balance	136.9	364.8	461.2	447.2	447.2

Notes: 1. Projected

2. Congress appropriates monies to and from the fund. First, it appropriates funds from general revenues into the Superfund. In addition, Congress must appropriate amounts from the Fund to be spent by the agencies.

3. Assumes expenditures will equal appropriations

NA = Not Applicable

Sources: U.S. Department of Treasury, Bureau of Government Financial Operations, "Status of Hazardous Substances Response Trust Fund," September 30, 1981, September 30, 1982, September 1983 reports.

Discussion with Staff of the Environmental Protection Agency, Comptroller's Office.

Office of Management and Budget, Budget of the United States Government, Fiscal Year 1984, (Washington, D.C.: U.S. Government Printing Office, 1983).

II. HAZARDOUS WASTE FUNDING MECHANISMS

To meet the objective of funding the Superfund, Congress must select one or a mix of funding mechanisms to generate revenues. Available funding mechanisms can be divided into the following categories: appropriations, feedstock taxes, and waste-based taxes. These categories and subcategories are listed in Table 2.

A. Appropriations

1. Description

Appropriations is a process where Congress appropriates monies from general revenues within the bounds of the authorization for expenditures. CERCLA authorizes appropriations from general revenues of $44 million each year through 1985 into the Superfund. To date, actual appropriations have been less than the authorized level. The appropriations process is generally carried out on a year-to-year basis, though Congress can make multi-year appropriations.

Appropriations to the Superfund come from general revenues. General revenues consist of tax collections and monies the U.S. Treasury borrows.

2. Rationale

The rationale for funding Superfund through appropriations is that the general public should pay for the costs of cleaning up abandoned sites since they benefited from lower cost products and since the responsible parties cannot be found or are insolvent.

B. Feedstock Tax

1. Description

A feedstock tax is usually an excise tax placed on raw material inputs to industrial processes. Under the CERCLA Program, a distinction is made between petroleum and chemical feedstock taxes. In the case of petroleum, a

TABLE 2
AVAILABLE HAZARDOUS WASTE FUNDING MECHANISMS

Appropriations

- General Appropriations

Feedstock Taxes

- Petroleum
- Chemicals
    - inorganic
    - organic
- Transfer Taxes

Waste-Based Taxes

- Flat Rate
- Graded by Type of Management
    - Generator
    - Transporter
    - Storer, Treater or Disposer
    - Other
- Graded by Degree of Hazard
- Surcharge Tipping Fees
- Permit or Manifest Fees

Other

- Cost Recovery/Liability
- Fines and Penalties
- Forfeiture of Bonds

tax is assessed on crude oil received at refineries, imported petroleum products, and exported crude oil. For chemical feedstocks, CERCLA lists certain organic and inorganic chemicals which are subject to varying tax rates. Certain exemptions apply for special uses of these chemical products. However, double taxation is possible through the tax on crude oil and then again on petrochemical feedstocks derived from oil. Although CERCLA places the tax at the refinery or where the feedstocks are produced, the program could be adjusted to place the tax earlier or later in the production process. Another option would be to institute a transfer tax, i.e. tax the transfer (e.g. from producer to buyer) of a specific quantity (barrels, lbs, tons) of a substance.

2. Rationale

The rationale for a feedstock tax is that it places a tax on the raw material inputs to industries or products that contribute to or eventually become hazardous waste problems. Feedstock taxes may vary based on the feedstocks subject to the tax and the point in the industrial process where the tax is assessed. Presently the petroleum, petrochemical and chemical industries pay the tax.

C. Waste-Based Tax

1. Description

A waste-based tax is a tax assessed at some point in the management of hazardous waste. The three important variables in a waste-based tax system are the wastes subject to the tax, the point at which the tax is assessed, and the type of tax that is assessed.

Wastes Subject to Tax. Most waste-based proposals base the tax on wastes defined by existing regulatory systems. At the Federal level, the regulatory program created by the Resource Conservation and Recovery Act (RCRA) has lists and four criteria (corrosivity, ignitability, reactivity, and toxicity) which define hazardous waste. Tax proposals must consider how these existing systems define waste. RCRA, for example, has provisions for delisting hazardous wastes and exemptions which may not be permanent for certain wastes such as utility waste and mining wastes.

There may also be overlaps between feedstock and waste-based taxes, particularly in the case where the transport of the material is being taxed. For response activities under CERCLA, for instance, there is a broad definition of hazardous substances that (1) includes substances defined under RCRA, the Toxic Substances Control Act (TSCA), the Clean Water Act (CWA), and the Clean Air Act and (2) provides EPA with the authority to define additional hazardous substances. If a tax were applied to hazardous substances as defined by CERCLA, the tax would apply to chemical feedstocks and hazardous wastes.

Point of Assessment. There are three basic points in the hazardous waste management chain where a waste-based tax can be assessed. These are the point of hazardous waste generation, the act of hazardous waste transport, and the point of hazardous waste management.

As with the definition of hazardous waste, most proposals use the RCRA definitions for generators, transporters, and facilities. A generator tax is therefore a tax on companies that produce hazardous waste. If "generator" is defined by the RCRA system, certain exemptions would apply, the most notable being the small quantity exemption. A transporter tax would be assessed on those who move hazardous waste from the point of generation to a facility or from a storage or a treatment facility to a disposal facility. A facility tax would apply to storage, treatment, and disposal facilities. If the RCRA system is used, certain facilities may be exempt from a facility tax (e.g., generators that store hazardous waste for less than 90 days, generators that utilize pretreatment facilities prior to discharge to a POTW).

Type of Tax. There are a number of options in the type of waste-based tax or fee that is assessed. These can be broken down into the following categories of taxes: a flat rate, rate graded by type of management, rate graded by degree of hazard, a surcharge or tipping fee, a permit or manifest fee, and/or any combination of the above.

Flat Rate. A flat tax on a per ton, gallon or barrel basis.

Rate Graded by Type of Management. A tax rate that varies depending on the type of facility to which the waste will be sent. For example, a graded tax rate might place a higher rate on land disposal facilities and a lower rate on resource recovery facilities. It is designed to encourage/discourage certain forms of hazardous waste management.

Rate Graded by Degree of Hazard. The tax rate is based on the hazardous characteristics of the waste (usually toxicity). The more hazardous the waste, the higher the tax.

Surcharge/Tipping Fee. The tax is a surcharge based on the value of managing the waste. In some states, such as Ohio, facilities act as "an agent of the State," collecting a surcharge on all waste received at the facility and paying it to the state.

Permit or Manifest Fee. A fee is charged to an applicant for a hazardous waste permit or is assessed on the basis of the manifests required by RCRA.

Finally, any combination of these taxes could be used. For example, a degree of hazard tax could be imposed on generators of hazardous waste, as is the case in one of the proposed bills to reauthorize Superfund.

2. Rationale

A waste-based fee imposes the cost of cleaning up spills and abandoned sites on industry which produces and/or manages hazardous waste. It may also impose economic incentives to encourage proper hazardous waste management. The major incentive will be to reduce waste generation or disposal and hopefully reduce future clean-up problems. Any of the previously discussed types of taxes can be assessed on generators, transporters, or facilities. A generator's tax will cover a comparatively large population and will establish economic incentives discouraging waste generation. A transfer tax will add to the cost of hazardous waste management, though it will also discourage the transport of hazardous waste. Taxes on facilities will encourage certain types of hazardous waste management. For example, a degree-of-hazard tax on disposal facilities will usually be designed to discourage land disposal of highly toxic wastes. Lower taxes or tax incentives can also be used to encourage certain forms of hazardous waste management (recycling, treatment, incineration).

It is important to understand, however, that a tax based on a rationale of decreasing waste generation may be in conflict with an objective of raising revenue.

D. Other

There are several other means of raising revenue, but they are not technically funding mechanisms or have limited revenue potential.

One revenue raising measure used by Superfund and the oil spill clean-up funds is cost recovery. Cost recovery is a means of collecting the costs of clean-up from responsible parties. It is more of a reimbursment mechanism than a funding mechanism. Other measures include revenues be obtained from forfeiture of bonds or through punitive damages and penalties.

III. EXISTING FEDERAL HAZARDOUS WASTE FUNDING MECHANISMS

The Federal hazardous waste program consists of a regulatory and permitting program created by RCRA and an emergency response and remedial action program created by CERCLA. One way of looking at the funding question is to examine how the Federal program currently funds hazardous waste programs. Table 3 provides a matrix comparing funding mechanisms with the three major programs: RCRA, Superfund, and the Post-Closure Liability Fund.

A. RCRA

Funds for RCRA programs are derived from general appropriations. Besides administrative expenses, it is important to note that RCRA includes a grants program for the states.

B. CERCLA

1. Receipts

CERCLA established two funds. The more prominant, the Hazardous Substances Trust Fund commonly referred to as the Superfund, derives its funding from several sources. Data on revenue receipts and expenditures under the Superfund program since its inception are listed in Table 4.

CERCLA authorizes funding for the Superfund from the following sources:

- authorization for appropriations of up to $44 million from the general fund;
- an excise tax on petroleum, petrochemicals, and chemicals;
- certain transfers of monies collected under a previous fund created by the Clean Water Act;
- monies obtained from responsible parties for clean-up activities; and,
- monies generated from penalties and punitive actions.

TABLE 3
FEDERAL HAZARDOUS WASTE PROGRAMS
(in millions)
(FY 1984)

Funding Mechanism	RCRA	Superfund	Post-Closure Fund	TOTAL
Appropriations[1]	$129	$44		$173
Feedstock Taxes[2]		$273[3]		$273
- Petroleum				
- Organic Chemicals				
- Inorganic Chemicals				
- Not Applicable				
Waste-Based Taxes[2]				
- Facilities			$20[4]	$20
Other				
- Cost Recovery[2]		$24		$24
TOTAL	$129	$341	$20	$490

Note:

1. FY 84 appropriations
2. Projections
3. Assuming the same breakdown as FY 1982, this total would be divided up among the following categories:
   - petroleum = $45 million
   - organic chemicals = $180 million
   - Inorganic chemicals = $48 million
4. According to EPA, the Post-closure fund will reach the $200 million ceiling within 10 years. This figures assumes $20 million is collected during the first year or 10% of the $200 million. This would be 8.7 million tons or 15% of the total tonnage of hazardous waste disposed of in 1981.

Sources: Belal, Rashida, "Superfund for Environmental Taxes, 1981 and 1982," SOI Bulletin, Vol. 3 #2, Internal Revenue Service, U.S. Department of Treasury, Fall 1983.

Office of Solid Waste and Emergency Response, EPA, "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated Under RCRA in 1981," August 30, 1983.

Personal communications with EPA staff, Office of Solid Waste and Comptroller's Office, Office of Public Affairs.

2. Expenditures

Under CERCLA, Congress appropriates monies to the agencies for each fiscal year from the Hazardous Substances Response Trust Fund. Under the law, monies in the fund can be spent on:

- response costs for a release or substantial threat of a release,
- claims for destruction of national resources,
- identification, investigation, enforcement, and abatement actions against releases of hazardous substances,
- health studies, and
- equipment required for responses.

Expenditures under the CERCLA in FY 1983 were divided as follows (in millions):

Research & Development	$ 6.8
Enforcement	17.7
Management	11.4
Other Agencies	18.4
Response (non-site specific)	49.0
Response (site specific)	117.4
TOTAL	$230.3

3. Post-Closure Liability Fund

CERCLA also created a second fund, the Post-Closure Liability Trust Fund, which is funded by a waste-based tax. The Post-Closure Fund was established to assume liability for sites that meet certain closure and post-closure requirements under RCRA. The fund can also be used to cover monitoring and maintenance expenses for these facilities. CERCLA places a $200 million cap on the Post-Closure Fund and instituted a $2.13 tax per dry ton of hazardous waste received at a land disposal facility. A recent survey of hazardous waste generation and management conducted for EPA found that 150 million metric tons of hazardous waste were generated in 1981. A total of 58 million metric tons (63.8 tons) was land disposed. The post-closure tax is on "dry" tons of hazardous waste. Most of the waste which is land disposed is in a dilute form. As a result, a dry ton tax will produce much less revenue. What constitutes a "dry ton" is a very difficult question for operators since the IRS has not defined a dry ton. This tax went into effect on October 1, 1983. Although EPA will not release revenue projections or expected collections for the Post-Closure fund, they do expect to reach the $200 million ceiling in less than ten years.

IV. ALTERNATIVE FUNDING OPTIONS FOR SUPERFUND

At the midpoint in the 98th Congress, five bills have been introduced to reauthorize CERCLA. Each of the bills is summarized below. Table 4 compares the existing funding system with the legislative proposals.

A. H.R. 3129: Hazardous Waste Reduction Act of 1983

Date Introduced: May 24, 1983
Sponsor: Representative Scheneider (R, Rhode Island)
Cosponsers: 62
Committees referred to: Energy and Commerce, Public Works and Transportation, and Ways and Means

A summary of the major provisions follows.

Appropriations
Authorizes appropriation of $190 million for each year from 1986 to 1995.

Taxes
Replaces the current feedstock tax on petroleum and chemicals with a waste-based tax. Thorough September 30, 1995 this new tax will be imposed on hazardous waste disposal facilities for the storage and disposal of toxic and non-toxic wastes. The bill uses the RCRA definition for hazardous waste. Table 5 lists the tax rates on each ton of hazardous waste.

Administration
Amends RCRA to direct EPA to develop a hazardous waste quantity assessment program to determine accuracy and effectiveness of the new waste-based tax system.

State Grants
Establishes a state grant program to assist the states in carrying out their RCRA program and cleaning up sites not in the NPL. This bill reserves $200 million in the response fund for this grants program.

Post-Closure Fund
Extends taxes on disposal for the post-closure fund through September 30, 1995.

Table 4

Comparison of Existing Hazardous Waste Funding Mechanisms to Proposed Legislation

Funding Systems	Appropriations	Feestock Taxes	Waste Based Taxes
Existing	Authorization of $44 million	$.0079 tax per barrel of oil, varying taxes on chemical feestocks	$2.13 tax per dry weight ton of hazardous waste on disposal facilities
H.R. 3129 & S. 1779	Increases authorization to $190 million for FY 1986 to 1995	Eliminates feedstock taxes	Establishes a tax on storage and disposal of toxic and non-toxic hazardous waste
H.R. 2627 & S. 860	Increases authorization to $190 million for FY 1986 to 1995	Eliminates feedstock taxes	Establishes a degree-of-hazard tax on generators
H.R. 1615	Increases authorization for appropriations by 5% each year through 1990	Increases feedstock taxes by 5% each year through 1990	No change
S. 816	Extends existing system through 1990.		

Table 5 - Tax Rates for H.R. 3129

Tax on Waste Disposal and Storage Facilities

	Before Oct. 1, 1990 Dollars/ton	After Sept. 30, 1990 Dollars/ton
Disposal		
Toxic	75	150
Non-toxic	25	50
Storage		
Toxic	20	20
Non-toxic	10	10

Note: The bill does not define treatment or recycling, although these processes are declared to be exempt from the tax.

B. H.R. 2627: Hazardous Substances Response Act

Date Introduced: April 20, 1983
Introduced by: Representative Richardson (D, New Mexico)
Cosponsors: 2
Committees referred to: House Energy and Commerce, Public Works and Transportation, Ways and Means

A summary of the major provisions follows:

Appropriations

Authorizes appropriations of $190 million for each year from 1986 through 1995.

Taxes

Allows feedstock tax to expire. The bill establishes a degree-of-hazard tax on generators of hazardous waste. Table 6 provides the details of how the tax rate varies. The generator is responsible for keeping records on his wastes from generation through disposal. The tax is not a one-time tax. The tax expires on September 30, 1995.

Administration

EPA must establish degree-of-hazard classifications for all listed hazardous wastes by July 31, 1985. The hazardous waste management industry must maintain records on hazardous waste management. IRS is given authority to develop rules necessary to properly assess and ensure payment of the taxes. The tax would go into effect on October 1, 1985.

State Grants

The bill provides President with authority to make grants to states for implementing and carrying out their RCRA and CERCLA programs. No more than 10% of the funds transferred to the Superfund can be granted to the states in any fiscal year.

C. H.R. 1615

Date Introduced: February 23, 1983
Introduced by: Representative La Falce (D, New York)
Cosponsors: 20
Committees referred to: House Energy and Commerce and Ways and Means

A summary of the major provisions follows:

Appropriations

The bill extends the appropriation authorization through 1990. It also increases appropriations by 5% a year, leading to a total 28% increase or an authorization by 1990 of $56.3 million.

Table 6 - Tax Rates for H.R. 2627

Tax on Generators of Hazardous Waste

	Before Oct. 1, 1990 Dollars/ton	After Sept. 30, 1990 Dollars/ton
Disposal		
Extremely Hazardous, Old Facility	100	200
Extremely Hazardous, New Facility	75	150
Highly Hazardous, Old Facility	50	100
Highly Hazardous, New Facility	30	60
Non-Toxic, Old Facility	12.50	25
Non-Toxic, New Facility	10	20
Storage		
Extremely Hazardous	50	100
Highly Hazardous	20	40
Non-Toxic	10	20
	Dollars/ton/100 miles	Dollars/ton/100 miles
Transport		
Extremely Hazardous	5	10
Highly Hazardous	2.50	5
Non-Toxic	0.50	1

Taxes
The bill extends the authorization for the existing taxes through 1990. It also increases the tax rate by 5% a year, leading to a total increase of 28 percent.

Post-Closure
The 5% increases also apply to the post-closure taxes, though it delays the incorporation of these taxes until 1990.

D. S. 1779: Hazardous Waste Reduction Act of 1983

Date Introduced: August 4, 1983
Introduced by: Senator Proxmire (D, Wisconsin)
Cosponsors: 0
Committees Referred To: Senate Finance Committee

Major Provisions: identical to H.R. 3129

E. S. 860: Hazardous Substances Response Act of 1983

Date Introduced: March 18, 1983
Introduced By: Senator Hart (D, Colorado)
Cosponsors: 3
Committees Referred To: Senate Environment and Public Works and Finance

Major Provisions: identical to H.R. 2627

F. S. 816

Date Introduced: March 16, 1983
Introduced by: Senator Bradley (D, New Jersey)
Cosponsors: 9
Committees Referred To: Senate Environment and Public Works and Finance

A summary of the major provisions follows:

Appropriations
Extends eixsting authorization of $44 million through 1990.

Taxes
Extends existing feedstock taxes through 1990.

Administration
No provisions.

State Grants
No provisions.

V. STATE FUNDING MECHANISMS

States have been very active in implementing alternative funding mechanisms for their own "Superfunds" and (including oil spill response funds) hazardous waste programs. Some of these state funding mechanisms pre-date CERCLA and RCRA, but the majority have been formed in response to the Federal programs. In the past year, EPA has encouraged States to adopt fee systems to support their hazardous waste management programs.

A. State "Superfunds

Thirty-four states have chosen 15 sources of funds to support their own "Superfund" efforts. These data are shown in Table 7. The most often used category of mechanism is the waste-based tax with 23 states having adopted one in some form. A middle tier of frequency comprises cost reimbursement (18), appropriations (17) and penalties and fines (14).

Only four states utilize a feedstock tax and all of these are transfer taxes (Maine's and New Hampshire's transfer taxes are dedicated to oil spill clean-up). None of the states directly tax the manufacture of petroleum or chemical feedstocks.

Within the category of waste-based fees, we find a fairly even split among the choices. Eight states utilize a flat rate. Seven grade the fee by the type of hazardous waste management activity (treat, store or dispose). Another seven use the revenues from permit or manifest (transfer) fees to fund their program. Grading by degree-of-hazard is only utilized by four states. Surcharge or tipping fees were the least chosen alternatives.

Table 7 shows that most States are relying on more than one mechanism. Only five of the thirty-four states rely on one mechanism (appropriations, forfeiture of bonds, bond issues, and a waste-based tax). Each state employs, on average, about three mechanisms. Louisiana and Missouri employ the most - seven.

Table 7

Funding Mechanisms for State Superfunds

	AL	AZ	CA	CO	CT	FL	GA	IL	IN	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO	NV	NH	NJ	NM	NY	NC	OH	OK	PA	RI	SC	TN	TX	VA	WI	TOTAL
Number of Mechanisms	2	3	4	1	5	6	1	1	2	2	2	7	4	2	4	4	3	2	7	2	4	4	2	3	5	3	1	3	1	3	3	2	2	3	34 States
Appropriations		x		x								x	x	x		x	x	x	x	x			x		x		x			x		x	x	x	17
Feedstock Taxes																																			
Petroleum																																			-
Chemicals																																			-
Transfer						x							x								x	x													4
Waste Based Taxes																																			
Flat Rate	x				x			x	x									x	x		x									x					8
Graded by Management										x	x		x				x							x	x						x				7
Graded by Degree of Hazard			x																												x		x	x	4
Surcharge Tipping Fee					x	x										x								x											4
Permit or Manifest Fee		x				x							x	x	x				x						x										7
Other																																			
Penalties & Fines	x	x	x		x	x						x			x				x		x	x		x	x	x		x							14
CERCLA Grants			x		x														x													x			4
Cost Reimbursements			x		x	x				x	x	x			x	x	x		x	x	x	x	x		x	x				x				x	18
Grants & Gifts						x						x							x																3
Forfeited Bonds							x					x																x			x				4
Interest on Fund									x			x																							2
Bond Issues												x			x	x						x						x	x						6
Sale of Restored Property																										x									1

Source: National Conference of State Legislatiures, Bureau of National Affairs
Data as of Decmber 1983.

A number of observations may be made here. First, resources did not allow us to determine the relative importance of each mechanism to a State's program. We cannot say whether a state expects 5%, 50% or 90% of its program funds from a particular mechanism. Second, we have not attempted to assess the extent of "Superfund" problems or needs in the states. The types of problems and the funds required to take care of them is a major factor in assessing the adequacy of any one mechanism. Third, we do not know the state's intent. Some states rely on appropriations and collect only token payments from the regulated community. Other states rely heavily on the "polluter pays" principle and require substantial payments. Fourth, over the past few years funding of programs have been in flux. States are experimenting with many alternatives. It cannot be shown from our data, however, what programs are being ignored or de-emphasized or which are newly implemented. For example, Florida, after very poor receipts from its waste-based tax, has recently moved to a transfer tax.

Because of these concerns, we contacted a number of states to develop a better understanding of their funding mechanisms, especially their fees and taxes. Ten states were contacted: California, Illinois, Louisiana, Michigan, Missouri, New Jersey, New York, Ohio, Rhode Island, and Wisconsin. In addition, the answers to our questions were supplemented by the case study materials collected by the firm last year for EPA's report on RCRA fees.

B. Goals

In each case, revenue was the primary goal of the funding mechanism. New York determined that it needed $10 million annually to address its clean-up problem and set its fees to accomplish that revenue goal. Incentives for desired waste management practices are, however, built into some systems, such as Missouri's. Incentives, however, are secondary compared to raising revenue. In the case of Ohio, the underlying policy is to discourage land disposal in its RCRA fees but all discussion is centered on revenue raising. We should also note that in the case of RCRA permit fees it is difficult to separate an incentive policy from assessments based on variations in the costs of processing applications from different types of facilities.

Louisiana does not currently have a tax for Superfund but is actively considering one. The state is looking at other state experiences. Reliability of the revenue source will be a major criterion for the mechanism chosen.

C. Strong and Weak Points

We asked states to rate their tax and fee programs on their strong and weak points.

Ohio and New Jersey had similar points to make about their surcharge (RCRA) and transfer tax respectively. In each case, the mechanisms are ranked high in administrative ease. The fees are very easy to calculate and track. In Ohio's case, five facilities collect the surcharges from the generators and forward receipts to Ohio EPA. Ohio would have used this mechanism more, but it is not useful for on-site disposal where there is no commercial transaction. New Jersey also noted that its transfer tax was established in 1975, before much was known about hazardous waste. The states choices, therefore, were not between feedstock and waste-based tax concepts.

California is authorized to reassess taxpaying units within one year if revenues fall short of needs. Last year's collections, for example, were about $1½ million short of the state's $10 million goal. A reassessment for the difference will be undertaken soon to ensure that the needed revenues will be collected.

Missouri suggested that the $2/employee/quarter generator assessment had some equity problems. There is not a direct relationship between this fee and the hazards to which employees are exposed.

Missouri also cited difficulties in collecting fees by the regulatory agency; the state taxing authority was proposed as a better alternative. California's receipts (from its RCRA fee program) increased 60 - 90% when collection was turned over to the Board of Equalization, its taxing authority.

D. Revenues

Of the states contacted, New Jersey's transfer tax appears to be the most accurate in terms of generating an expected level of revenue. This does not mean to suggest that there are no fluctuations, because there are. The state collects an average of $800,000 per month and finds it can project its receipts accurately. There is contingency authority to issue $100 million in bonds but this has not been necessary.

Missouri only had data on its generator employee tax. The state had collected $402,000 out of an expected $450,000 (89%). They expect to collect $2.3 million from this tax plus the land disposal fee. The actual figure was not available. The state is pleased with the level of revenues received.

California collected 85% of its $10 million goal last year and will soon recoup the difference in its reassessment. The state suggests that errors in reporting, misinterpretations and corrections are responsible for the shortfall.

Ohio finds that it can accurately project its receipts. On the basis of such a projection, the state sought and was granted a 50% increase in its surcharge rate (from 6% to 9%). Ohio is one of the few states that must fund its RCRA program entirely through fees. It is necessary, therefore, to continually monitor receipts and make adjustments to the rates.

New York collected $3.9 million last year, considerably short of its $10 million goal. The state attributes the shortfall to the following causes:

- materials recovery - not taxed under the State's superfund
- diversion of wastes - 40% of revenue was from out-of-state wastes
- estimation errors - data used for projections was inadequate
- national economy - the recession lowered output

- non-compliance - firms may not have paid
- illegal storage - under-reporting waste quantities or illegally storing on site.

The state suspects that the first four reasons account for most of the shortfall.

Illinois, which uses a waste-based tax for its Superfund, is also facing revenue shortfalls. The state will collect less than $250,000 this year, down from approximately $300,000 last year. The reasons for the shortfall are not clear. The influence of nearby out-of-state generators and facilities was raised as a factor.

Louisiana's RCRA fees generated $700,000 this year, down from $900,000 last year. There are several reasons; the major reason suggested is that the state recently adopted the Federal universe of RCRA waste which is significantly smaller than the one originally used by the state. The state is looking at the alternatives of raising fee rates or assessing generators.

E. Impacts of Changes in the Federal Superfund

In general,the states we spoke to had not yet developed a position on changes in the Federal Superfund. Several of the states have not yet had to think seriously about the issue.

Concern was raised over the use of a waste-based tax. California and Missouri suggested that if such a tax pre-empts the many state waste-based taxes, state programs would be heavily impacted. States have chosen waste-based taxes in lieu of feedstock taxes with the preemption issue in mind.

A second concern is whether a waste-based tax will exacerbate revenue projection/collection problems now faced by state Superfund and RCRA programs. Will additional waste-based taxes increase the rate of facility closure, less than 90-day storage, recycling and reuse? Most states have indicated that state fees have not been a significant factor in the choice to stay in or drop out of the hazardous waste system. Whether this would remain true with the addition of a a Federal waste-based fee was a concern.

Finally, only one state felt that changes in the Federal feedstock tax could have an impact on its program. New Jersey raised a concern that its transfer tax could be preempted by a revised Federal feedstock tax.

VI. DESCRIPTION OF EVALUATION CRITERIA

Evaluation of a proposed Superfund funding option requires criteria by which the proposed system can be judged. Six major criteria have been identified for evaluating the strengths and deficiencies of proposed systems. The six criteria area:

- o Revenue Potential
- o Administrative Feasibility
- o Impacts on other Federal/State Programs
- o Equity Implications
- o Economic Impacts
- o Environmental Impacts

These criteria are defined as follows:

A. Revenue Potential: What is the potential of the funding option to produce the necessary revenue?

One of the primary objectives of any Superfund funding option must be to raise revenues for the Fund. Earlier portions of this analysis discussed the scope and expense of the clean-up problem. This burden will require a Superfund financing system that can produce adequate revenues for an extended period into the future.

Considerations that are relevant are:

- o For tax approaches, what is the size of the tax base? What impact will the funding option have on the tax base?
- o What are the limitations on the funding option? What are the competing demands?
- o What are the future expectations for the funding option? Will the option produce the necessary revenues at the desired level over time?

B. Administrative Feasibility: Is the funding option efficient, implementable and enforceable?

A funding mechanism must be evaluated in terms of its efficiency, implementation requirements, and enforceability.

Efficiency is an objective measure of administrative expenses versus the revenues generated by a system. What proportion of the revenues must go for the administrative expenses of implementing and maintaining the fund?

Implementation requirements include time frames, costs, and revenue requirements necessary to develop, implement, and maintain the system. A tax system, for example, will require gathering information on the tax base, writing the rules and regulations for the tax, informing the tax base, collecting the tax, and punishing those who do not pay the tax. Carrying out these activities will take time, cost money, and require contracting or hiring staff to conduct the activities.

The final component of administrative feasibility concerns the ease of detecting violations and enforcing against violations.

C. Impacts on Other Federal/State Programs: How will the funding option impact on other Federal and state programs?

This criteria has two aspects:

o how will the funding option impact on other Federal and state funding mechanisms? What funding mechanisms will be affected? How serious will the impact be?

o how will the funding option impact on other Federal and state hazardous waste programs? What programs will be affected? How serious will the impact be? Will the impact be positive or negative?

D. Equity Implications: Is the distribution of the cost burden appropriate and equitable with respect to responsibility for the Superfund problem?

Equity implies placing the cost burden on those who created the Superfund problem and/or those who benefitted as the result of the creation of the Superfund problem. The equity question is probably the most subjective and philosophical of the six criteria. As there is no objective measure of equity, no tax system can be perceived identically by all parties. Consequently no agreement will be reached on which tax system is totally equitable. One perspective is to focus on those corporations or organizations which produced the waste or managed the facilities at which the Superfund problems have occurred. A second perspective is to assess who benefitted because insufficient resources were allocated to waste management. The assessment is complicated because the problems were created and the benefits were accrued in the past.

E. Economic Impacts: How will the funding option affect different segments of the economy?

This criteria involves several considerations:

- What sectors of the economy will pay under a funding option?
- What will be the impact of the funding option each section?
- What will be the secondary and tertiary impacts of the funding option?

F. Environmental Impacts: What environmental impacts can be expected as the result of incentives and disincentives inherent in the funding option?

This criteria assesses whether the funding option will have positive or negative effects on hazardous waste management. For example, will the option:

- encourage or discourage the generation of hazardous waste,
- encourage or discourage different forms of waste management,
- encourage or discourage compliance with hazardous waste regulations,
- encourage or discourage the creation of future hazardous waste problems?

VII. EVALUATION OF ALTERNATIVE FUNDING OPTIONS

The evaluation of a funding option requires the analysis of the option in comparison to other funding mechanisms against a set of criteria. This study has identified the available funding mechanisms and the major criteria by which an option can be evaluated. The matrix in Table 8 illustrates the major mechanisms and the major criteria.

A full analysis would require evaluating the trade-offs between mechanisms according to each criteria. This would create the need for a three dimensional matrix. In fact, the potential analysis is even more complicated given the fact that combinations of mechanisms (i.e. 30% appropriations, 70% taxes) must be evaluated.

In order to keep this presentation within its scope and resources, the advantages/disadvantages of each funding mechanism is addressed by presenting a brief background discussion. The arguments which may be made for and against each mechanism are emphasized with respect to each of the six major criteria.

A. Appropriations

1. Background

CERCLA authorized appropriations of $44 million per year for FY 1980 through FY 1984. In the 1980 debate on CERCLA, legislative proposals varied from excluding any authorization for appropriations to providing a $500 million authorization. During the hearings on the various proposals, some suggesed that clean-up expenses should be entirely funded by appropriations.* Under existing proposals for reauthorizing CERCLA, authorizations for appropriations remain at $44 million, are slightly increased, or are increased to $190 million.

---

*U.S. Congress, House of Representatives, Hearings before Committee on Ways and Means, "The Comprehensive Oil Pollution Liability and Compensation Act, and the Hazardous Waste Containment Act," June 2, 1980, p. 14.

TABLE 8

FUNDING MECHANISMS AND EVALUATION CRITERIA

FUNDING MECHANISMS	REVENUE POTENTIAL	ADMINISTRATIVE FEASIBILITY	IMPACTS ON OTHER PROGRAMS	EQUITY IMPLICATIONS	ECONOMIC IMPACTS	ENVIRONMENTAL IMPACTS
Appropriations						
Feedstock Taxes						
Waste-Based Taxes						
Other						

2. Revenue Potential

For

- The Federal government has the capability to raise sufficient sums.
- The funding requirements for Superfund are not significant in the context of the Federal budget.

Against

- Increased appropriations would place an additional burden on the Federal tax base at a time of large Federal deficits.
- Appropriations are generally developed on a year-to-year basis and there is therefore uncertainty with respect to actual amounts that will be appropriated.

3. Administrative Feasibility

For

- The Federal tax system is efficient. The tax structure is in place. Resources for enforcement are in place.
- There are well established budgeting and funding systems in place in the appropriations process. Appropriations will not require significant additional costs in staff or resources.

Against

- The appropriations process is uncertain. Actual funding levels may vary. Long term program planning may be difficult.

4. Impacts on Federal/State Programs

For

- Appropriations for Superfund do not have a measurable impact on the funding of other Federal and state programs.
- Appropriations for Superfund do not alter hazardous waste management behavior.

Against

- At a time of large Federal deficits, any additional burden on the Federal tax base is undesirable.

- Funding for Superfund should be structural to reduce the generation and/or improve the management of hazardous waste.

5. Equity Implications

For

- Appropriations spread the burden for the fund across the entire tax base. This is equitable since the entire economy has benefited from the lower cost of products that did not incorporate the cost of proper hazardous waste management.
- Attributing the clean-up problem to a certain sector of the economy is unfair, since many of those who are responsible are insolvent or unidentifiable.
- Under the liability provisions of CERCLA, those who are responsible will be litigated for the costs of the clean-up. Funds that are not recovered should be spread across the economy, since a responsible party cannot be identified or cannot financially meet the clean-up expenses.

Against

- Appropriations spread the burden unfairly across the entire tax base. The general public should not be required to pay for the mismangement of a few.

6. Economic Impacts

For

- Appropriations spread the economic burden across the entire economy for problems created by past hazardous waste management activity.
- Appropriations avoid placing burden on a new hazardous waste management industry already burdened by significant regulatory compliance costs and liability risks.

Against

- Appropriations further strain an already burdened Federal budget deficit.

7. Environmental Impacts

For

- o Appropriations will not impact hazardous waste management. It will allow the newly placed Federal and state hazardous waste regulatory program to operate without the possible negative influences of a funding program.

Against

- o Appropriations will avoid placing economic incentives to encourage and/or sanctions to discourage certain hazardous waste management activity.

B. Feedstock Tax

1. Background

CERCLA established two feedstock taxes that will expire at the end of FY 1985. The first tax places a $.0079 tax per barrel of oil. The second places a tax on organic and inorganic chemicals that varies between $.24 and $4.87 per ton. Original proposals for CERCLA varied a great deal. However, all proposals which incorporated a tax placed the tax on crude oil (by the barrel) and on individual chemicals. Some of these proposals provided EPA with a great deal of discretion in setting the tax, but set a ceiling on the tax based on the chemical's price (usually no more than 2% of its price). In addition, many of the proposals established a ceiling for total collections of taxes on petroleum and chemicals. Under CERCLA, if the unobligated balance of the fund reaches $900 million and the Department of Treasury determines that this balance will exceed $500 million by the end of the following year, the taxes expire.

2. Revenue Potential

For

- o The size of the chemical industry and the volume of chemicals produced allows very small fees to produce the revenues needed for the Superfund. According to the IRS, from the Superfund program initiation to the end of FY 1982, 344 petroleum companies paid a total of $58.5

million dollars on 7.4 billion barrels of oil, 194 companies paid $243 million on 51 million tons of petrochemicals and 333 companies paid $65.8 million on 53.5 million tons of inorganic chemicals. According to EPA's 1980 analysis, these taxes would represent less than 2% of chemical prices. In the case of petroleum, the 1982 composite refinery acquisition cost was $31.87. A $.0079 tax represents roughly 2.5% of this cost, and roughly 1.5% of the retail price for gasoline.

- The state fee systems were designed to not compete with the Federal system. Reauthorizing a feedstock tax should not hurt state revenue generation because of competing taxes.
- The feedstock volumes used are more predictable and verifiable than waste volume or disposition data. Also the definition of a feedstock is more stable and predictable than the definition of a waste.

Against

- Except for the fact that tax revenues go down in periods of low economic activity, as would revenues from any tax system, there have been no arguments against the ability of feedstock taxes to raise substantial revenues.

3. Administrative Feasibility

For

- The Federal government, particularly DOE and IRS, have a great deal of information on the relatively small number of companies that produce petroleum and chemicals. This makes it easy to project revenues, collect these taxes and meet revenue projections.
- The tax is easy to administer because it applies to only a small number of companies. As of the end of FY 1982, approximately 900 companies paid taxes on petroleum, petrochemicals, and inorganics.
- The feedstock tax is in-place. IRS has established the rules and regulations, the administrative procedures, and the experience in running the program. Reauthorizing the tax does not, as a result, involve new start-up costs.
- Experience allows for greater predictability in estimating revenue generation.

Against

- o The feedstock system requires careful record-keeping to ensure that there is no double-counting of fees.

4. Impacts on Federal/State Programs

For

- o The feedstock system is in-place. State hazardous waste funding systems rely primarily on waste-based systems. Continuing a feedstock system will not create added competition for state funding systems.
- o The IRS has just implemented a hazardous waste disposal tax under the post-closure fund. Reauthorizing a feedstock tax will not compete with this funding mechanisms.

5. Equity Implications

For

- o All users of the feedstock pay equally. The tax, therefore, does not impose a competitive disadvantage on any one firm.
- o Crude oil, petrochemicals, and inorganic chemicals are hazardous in a number of forms and their manufacture or the manufacture of subsequent chemicals generates hazardous wastes. According to EPA, these industries generated approximately 75 percent of the hazardous waste in 1981.
- o A feedstock tax assures that generators or those that contribute to the generation of hazardous substances and wastes but are excluded through exemptions in RCRA (e.g., small quantity, mining wastes, utility boiler waste, recycled waste) pay for the fund through their purchases of these raw materials.
- o A feedstock tax does not depend upon the definition of when something becomes a waste, which may be subject to arbitrary distinctions (e.g. on-site vs. off-site).

Against

- o A feedstock tax places the burden on industries which are not entirely responsible for hazardous waste problems. Many of these products do not become hazardous waste.

- A feedstock tax does not tax generators of hazardous waste. CMA estimated in 1980 that 40% of the products that chemical manufacturers produce would not result in generation of hazardous waste.
- A feedstock tax is only indirectly related to the hazardous waste problem. A waste-based tax would install an incentive to reduce the generation of hazardous waste.

6. Economic Impacts

For

- The tax burden of the feedstock taxes is minor ($.0079 per barrel for oil and between $.24 and $4.87 per ton for petrochemicals and organics). This represents less than 1% for the refiner's cost of oil, and less than 3% of the price of the applicable chemical feedstocks.
- The economic impact on these industries is small. In 1978, for example, the top 50 chemical companies total sales were between $470 and $8,000 million. According to the IRS, the average tax per company from March 1981 to September 1982 was $170,000 for the oil industry, $1,250,000 for the petrochemical industry, and $196,000 for the inorganic chemicals industry. Overall, this results in average tax burden of $400,000 per company.
- The cost of such a tax is easily passed through in finished products.

Against

- The tax will pass through in product costs to industries that are not responsible for hazardous waste. For example, a new company that purchases a large amount of chemical feedstocks to produce materials that are not hazardous will have to pay more for raw materials even though the company is not contributing to the waste problem.
- Although small in percentage terms, any incremental increase reduces a product's competitiveness.

7. Environmental Impacts

For

- "Backloading" the system creates a more direct incentive for illegal disposal.

- A feedstock tax may lead to efforts at feedstock conservation.
- If both states and the federal government were to rely on waste-end taxes, the fees for waste disposal for any one generator may create additional and direct incentives to dispose of waste illegally.

Against

- A feedstock tax has no beneficial impact on hazardous waste management or volume reduction.

C. Waste-Based Tax

1. Background

CERCLA also established a waste-based tax through the creation of the Post-Closure Liability Trust Fund which is financed by a $2.13 per dry ton tax on receipt of wastes at a land disposal facility. In the hearings on CERCLA, the Chemical Manufacturers Association (CMA) advocated a waste-based system, proposing a degree of hazard tax system. In its recent testimony to the Subcommittee on Commerce, Transportation and Commerce, CMA once again has advocated a waste-end tax, but did not specify what type of tax. The Office of Technology Assessment (OTA) recommends a waste-based tax system on generators of hazardous waste to finance the Superfund.

Current proposals before the Congress either extend the existing system or replace it with a degree-of-hazard tax or a tax on storage of disposal of hazardous waste. For the most part environmental groups and waste associations seems to be advocating an extension or expansion of the existing feedstock tax system.

2. Revenue Potential

For

- With existing hazardous waste generation estimates under the existing RCRA system varying between 40 and 165 million tons per year, a waste-end tax can produce revenues required to support the Superfund.

- If RCRA is amended to more broadly define waste generation or if Superfund more broadly defines hazardous waste an even larger tax base will arise, possibly allowing for a lower tax.

Against

- A waste-based tax would make-up a much larger percent of the product's cost as compared to a feedstock tax. Prices charged by hazardous management facilities vary a great deal. An OTA study places the range between a low of $5 per ton for land treatment to a high of almost $800 per ton for chemical treatment or incineration. Assuming a land disposal tax of $10 per ton and a land disposal cost of between $50 and $240 per ton, this tax would represent a between 4 and 20% of the cost of disposal as compared to the 1-3% figure for the current feedstock tax. Such an increase in cost combined with the increases due to compliance with the implemented RCRA program may lead to waste reduction, companies seeking exemptions under RCRA, or companies illegally disposing of wastes. One or all of these activities would decrease the tax base and reduce expected revenues.

- A waste-end tax would be in addition to the newly implemented Post Closure tax of $2.13 per dry ton of waste. This again increases the overall Federal tax burden on waste and may lead to revenue short falls for the Post-Closure fund.

- Thirty-four states have implemented a RCRA or Superfund tax to support their hazardous waste programs. A Federal waste-based tax will further add to the tax burden on hazardous waste management activity, reducing the revenue generation for these state programs. It should be noted that EPA has encouraged state fee systems as a possible means of paying for the costs of State RCRA and Superfund program.

- Implementation of a Federal waste-based tax could take several years, effectively denying revenues for that period of time.

- The five states that have tried to project revenue generation have experienced short falls of between 10 and 93%, averaging 43%.

3. Administrative Feasibility

For

- Since CERCLA's passage, a great deal of information on hazardous waste management activity has been gathered under RCRA and other programs. Compared to when CERCLA passed in 1980, the RCRA program is now largely in-place. Basing a flat tax on RCRA defined wastes would not pose significant long term administrative difficulties.

- The IRS and Federal government have shown a capability to effectively implement tax programs on numerous and diverse tax bases.
- A Federal system would avoid some of the problems facing state systems such as interstate movement of waste to avoid taxes.

Against

- EPA does not have all the information it needs to implement a waste-based system. IRS and EPA would have to work through a rule-making process. Furthermore, if EPA amends RCRA to close loopholes (especially the small generator exemption), the implementation process will be further delayed. If this system is complicated by a classified system or a degree-of-hazard system, the administrative problem becomes more difficult. Additional costly studies, rulemaking time and resource needs, notification requirements, and enforcement resources will be required.
- State experience has shown the costs of implementing a waste-based system are high compared to revenue generation. One state, for instance, raised $18,000 at a cost of $75,000. Based on shortfalls, two states have moved to a transfer tax that incorporates feedstocks.
- Some of the CERCLA proposals envision increasing the state grant program. If the Federal program preempts the state program, the resources the states have spent in setting up the program are wasted. Further, additional expenses will be involved for the state and the Federal government to administer a grant program. If the Federal program does not preempt the state program, the Federal and state government will be competing for a similar tax base. If a grants program is also included, the Federal government will be taking revenue formerly going to the state, establishing a grant program with these revenues, and requiring states to apply for these funds.
- As the definition of "hazardous wastes" and "recycling" changes, there will be uncertainty in projecting fees to be collected, and in enforcing such a system.
- Unless a waste-based fee system is based on the volume of waste alone, the system of fees and credits to either

encourage or discourage certain activities would create a virtually infinite number of taxation schemes and combinations.

- Superfund sites could be subject to waste-based taxes. If this were the case, CERCLA funds would be spent on CERCLA sites which would then be taxed for the CERCLA fund.

4. Impacts on Federal/State Programs

For

- A waste-based tax fits into the objectives of a hazardous waste regulatory program by establishing incentives that discourage the generation and/or disposal of hazardous wastes.
- A waste-based tax should encourage a reduction in waste generation and disposal, reducing the needs of Superfund in the future.
- So long as federal and state taxes are for different purposes, no preemption should occur.

Against

- A Federal waste-based tax would compete with state RCRA and Superfund fee systems that have been or are being implemented. These programs, which have experienced initial difficulties, may be jeopardized by a Federal waste program during a time when the cost of their programs is growing as they obtain full authorization for their RCRA programs and as financial demands incrase for their required participation in the Superfund program.
- The post-closure tax recently went into effect. Another waste-end tax may jeopardize collections under this program.

5. Equity

For

- A waste-based tax imposes the cost of cleaning up hazardous waste on the waste industry. It embodies a "polluters pay" concept and directs the fee mechanism toward the problem.

- A waste-based tax will be imposed on those who may create abandoned sites in the future. It meets two objectives by taxing those industries who will create the future hazardous waste problems and increases the cost of hazardous waste management which should reduce or curb hazardous waste generation and disposal.

- A waste-based tax will complement the restrictions that are being implemented under RCRA and will provide additional incentive to discourage land disposal.

Against

- A waste-based tax would be imposed on existing and future waste management companies already paying increased compliance costs, growing waste-taxes at the state level, and a new post-closure tax.

- The post-closure tax provides an equitable means of taxing for funding future clean-ups.

- The Superfund covers more than just abandoned site clean-up. It also covers hazardous substances spills, health studies on hazardous substance effects on the human body, R&D, technical assistance, and emergency planning.

- Between 39 and 63% of all CERCLA priority sites were caused by illegal dumping. This tax does not get at these "bad actors" at all.

6. Economic Impacts

For

- Recent EPA estimates of hazardous waste generation indicate that the tax base is much larger than originally estimated. If some exemptions are closed under RCRA or if CERCLA adopts a broader definition for hazardous waste, this further expands the tax base. A conservative figure for waste generation of 90 million tons a year indicates that the revenues generated by the feedstock taxes in FY 1982 could be met by a $2.65 tax per ton on generators of hazardous waste.

Against

- A waste based tax will add to an increasing and already heavy cost burden due to the increasing costs of compliance with RCRA, the establishment of a number of state waste based systems, and the recent implementation of the post-closure tax. If a disposal tax on toxic waste was passed and assuming a $10.00 (see OTA study) per ton tax was needed, the total tax burden in New York state would be $12.00 (state tax) plus $2.13 per dry ton for post-closure tax, plus $10 (for the new tax) creating a tax burden of $24.13 or almost 25 percent of the cost of disposal (assuming a disposal cost of $100 per ton). This does not include federal and state income taxes, sales taxes, or property taxes that the facility will have to pay.

- It is not clear what impact a waste-based tax will have on the tax base. If it leads to lower revenue collections (either due to waste reduction or illegal activity), proponents argue that the tax could be raised. This will almost certainly have a snowballing effect, requiring even higher taxes. As tax rates go up, the incentive for illegal disposal will grow.
- EPA estimates of hazardous waste are highly variable. Recent much higher estimates were based on measures that included wet tons. If a tax were placed on wet tons, an incentive would be created to generate concentrated hazardous waste, which does not reduce the hazardousness of the waste but just concentrates it in smaller volumes and also leads to smaller collections of revenues. If the tax is placed on dry tons, as in the case of the post-closure tax, the recent EPA estimates should not be used.
- The hazardous waste management industry is being revitalized by the RCRA and CERCLA programs. Added costs required for compliance, new tax systems, and for the inherent risks of liability place an enormous cost on those trying to operate in good faith in the industry. Any additional costs encourages illegal activity to reap the benefits of non-compliance with RCRA and taxes.

7. Environmental Impacts

For

- A waste-based tax will increase the cost of hazardous waste management and discourage the generation of hazardous waste.
- If the tax is directed (i.e., degree of hazard or a tax on disposal), the tax will increase the cost of this hazardous waste management activity and encourage alternate and more desirable practices (treatment, recycling, etc.).

Against

- Assuming full compliance by industry, the tax would still encourage the use of loopholes. If the tax were imposed on RCRA-defined wastes, for instance, it would encourage industries to meet the exemptions (e.g., small quantity), or use wastes as fuel.
- Adding a tax to an industry already burdened with heavy regulatory costs, an existing Federal tax, and many state taxes will encourage illegal disposal.
- State experience with waste-based tax has not demonstrated environmental benefits. The quantitative relationship between taxation and environmental protection are unclear.

References

Association of State and Territorial Solid Waste Management Officials and U.S. Environmental Protection Agency, "Overview of Financing Options and Key Decision sin Descquiring Options," (San Francisco: ICF, Inc., November 10, 1983).

Briefings on State Feedstock Taxes, Waste-End Taxes, Transfer Taxes and State Financing Handbooks, ICF, Inc.

"Comprehensive Environmental Response, Compensation, and Liability Act of 1980," Public Law 96-510, December 11, 1980.

"Emergency Actions Completed at 153 sites in First Three Years of Superfund Program," Environment Reporter, November 18, 1983, p. 1313.

The Environmental Law Institute, Superfund: A Legislative History, Volumes I-III, (Washington, D.C.: The Environmental Law Institute, 1982).

Hirschorn, Joel S., "Hazardous Waste Source Reduction and a Waste-End Superfund Tax," for presentation to the Massachusetts Hazardous Waste Source Reduction Conference, October 13, 1983.

Personal Communication with staff of the Bureau of Government Financial Operations, Internal Revenue Service, Department of Treasury, December 1983.

Personal Communication with the staff of the California Department of Health Services, February 1984.

Personal Communication with staff of the Comptroller's Office, Environmental Protection Agency, December 1983.

Personal Communication with the staff of the Illinois Environmental Protection Agency, January, 1984.

Personal Communication with the staff of the Louisiana Department of Natural Resources, January, 1984.

Personal Communication with the staff of the Michigan Department of Natural Resources, January, 1984.

Personal Communication with the staff of the Missouri Department of Environmental Management, January, 1984.

Personal Communication with the staff of the New Jersey Department of Environmental Protection, January, 1984.

Personal Communication with the staff of the Ohio Environmental Protection Agency, December, 1983.

Personal Communication with staff of the Office of Solid Waste, Environmental Protection Agency, December 1983.

Personal Communication with staff of the Rhode Island Department of Environmental Management, January, 1984.

Personal Communication with staff of the Wisconsin Department of Natural Resources, January, 1984.

"Point... and Counterpoint," Environmental Forum, December 1983.

State of New York, Assembly, Ways and Means Committee, The New York Not So Superfund... A Program in Trouble, December 21, 1983.

State of New York, Department of Environmental Conservation, Inactive Hazardous Waste Remedial Plan, Draft, January 1, 1984.

"Supplemental Appropriation for Superfund Being Considered for Fiscal 1984, EPA Says," Environment Reporter, November 4, 1983, p. 1245.

U.S. Congress, House of Representatives, Hearings before Subcommittee on Commerce Transportation and Tourism of the Committee on Energy and Commerce, Selected written testimony, November 16, 1983.

U.S. Congress, House of Representatives Hearings before Subcommittee on Water Resources of the Committee on Public Works and Transportation, "Comprehensive Oil Pollution Liaibility and Compensation Act," September 26, 1979.

U.S. Congress, House of Representatives Hearings before the Committee on Ways and Means, "Comprehensive Oil Pollution Liability and Compensation Act, and the Hazardous Waste Containment Act," June 2, 1980.

U.S. Congress, House of Representatives Hearings before the Subcommittee on Transportation and Commerce, Committee on Interstate and Foreign Commerce, Superfund," June 19, August 10, and 11, 1979.

U.S. Congress, Office of Technology Assessment, Technologies and Management Strategies for Hazardous Waste Control, (Washington, D.C.: U.S. Government Printing Office, March 1983.

U.S. Congress, Senate, Hearings before the Committee on Commerce, Science, and Transportation, "Environmental Emergency Response Act, "September 11 and 12, 1980.

U.S. Congress, Senate, Hearings before Committee on Finance, "The Environmental Emergency Response Act," September 11 and 12, 1980.

U.S. Department of Energy, Energy Information Administration, Monthly Energy Review, August 1983.

U.S. Department of Treasury, Bureau of Government Financial Operations, "Status of Hazardous Substance Response Trust Fund - September 30, 1983."

U.S. Environmental Protection Agency, Hazardous Waste Generation and Commercial Hazardous Waste Management Capacity, prepared by Booz-Allen & Hamilton, Inc. and Putnam, Hayes and Bartlett, Inc., December 1980.

Appendix

Alabama

I. Sources of Fund

- Flat fee of $2/drum or $5/ton bulk weight on generators of waste. 5% of this goes to administer state RCRA Program, 10% to Superfund, 85% to county where facility is located.
- Incenerated, recycled, or reused waste not taxed.
- Fees collected from Hazardous Waste Management Act.
- Any penalties collected under Hazardous Waste Management Act.

II. Uses of Fund

- Perpetual care and maintenance of all approved Hazardous Waste Management Facilities, including post-closure liability.

Arizona

I. Sources of Fund

- Permits and fees collected from HWM facilities.
- General appropriations (upper limit $500,000).
- Penalties resulting from spills or illegal dumps.

II. Uses of Fund

- Matching funds for CERCLA.
- Clean up of groundwater owned or leased by state or politicial subdivision of state.
- Monitoring HWM facilities.
- Emergency response to imminent or substantial threats caused by HWM facilities.
- Administrative expenses.

California

I. Sources of Fund

- Fines and penalties collected under Hazardous Waste laws.
- Federal grants under CERCLA.
- Cost reimbursement.
- A degree of toxicity graded generator tax, designed to raise $10 million/year.
- Reassessments for revenue shortfalls.

II. Uses of Fund

- Administrative costs.
- Matching funds for CERCLA.
- Equipment for hazardous substance response.
- Epidemiology studies of effects of hazardous substances.
- Natural resouce rehabilitation.
- Damaged-person compensation.

Colorado

I. Sources of Fund

- General appropriations.

II. Uses of Fund

- Administrative costs.
- Emergency response.

Connecticut

I. Sources of Fund

- Flat generator tax of 4¢/gallon.
- 1% revenue tax on HWM facilities.
- Cost reimbursement.
- Penalties and fines collected and hazardous waste laws.
- Federal grants from CERCLA.

II. Uses of Fund

- Emergency response.
- Matching funds for CERCLA.
- Drinking water restoration.
- Hazardous waste site inventory.
- Post-closure monitoring and care of facilities.
- Liability on facilities not covered by owner.

Florida

I. Sources of Fund

- At present, are money from a generator surcharge of 3% of disposal cost to a transfer fee.
- Transfer fee is $.02/barrel on first transit into or within state of petroleum, gasoline, pesticides, ammonia, chlorine, or their derivatives.
- Permit fees for HWM facilities.
- General appropriations.
- Cost reimbursement.
- Penalties and fines.
- Grants and gifts to the fund.

Florida (continued)

II. Uses of Fund

- Emergency response.
- Matching funds to CERCLA.
- Post-closure monitoring and maintenance of facilities.
- Restoration of areas damaged by spills, dumps, or abandoned sites.

Georgia

I. Sources of Fund

- Forfeited bonds.

II. Uses of Fund

- Abandoned site cleanup.
- Post-closure monitoring and maintenance of HWM facilities.

Illinois

I. Sources of Fund

- Flat fee on HWM facilities of 1¢/barrel or $2.02/cubic yard of waste disposed.

II. Uses of Fund

- Emergency response.
- Abandoned site cleanup.
- Research and development of alternatives to land disposal.

Indiana

I. Sources of Fund

- Flat tax on facilities of $1.50/ton of waste received.
- Interest on fund.

II. Uses of Fund

- Matching funds for CERCLA.
- Cleanup and emergency response equipment.

Kansas

I. Sources of Fund

- Graded fee on facility operators, not to exceed 25¢/cubic foot received.
- Cost reimbursement.

II. Uses of Fund

- Matching funds for CERCLA.
- Post-closure monitoring and maintenance of HWM facilities.
- Cleanup of abandoned sites.

Kentucky

I. Sources of Fund

- A tax on HWM facilities, which varies by treatment storage and disposal methods. The fee schedule is:
  - 5¢/gallon, $2.50/cubic yard for containment.
  - 1¢/gallon, $1.00/cubic yard for treatment which leaves wastes hazardous.

Kentucky (continued)

- .5¢/gallon, $.50/cubic yard for destructive treatment.
- .5¢/gallon, $.50/cubic yard for treatment which leaves non-hazardous wastes.
- Onsite fees ½ of those above.
- Onsite incinerating, detoxifying, solidifying, neutralizing, and recycling facilities are not taxed.

o Cost reimbursement.

II. Uses of Fund

o Emergency response.

o Post-closure monitoring and maintenance of HWM facilities.

o Testing, waste removal, and clean up of abandoned sites.

Louisiana

I. Sources of Fund

o Bond issues.

o General appropriations.

o Cost reimbursement.

o Penalties and fines.

o Forfeited bonds.

o Grants and gifts to fund.

o Interest on fund.

II. Uses of Fund

o Emergency response.

o Matching funds to CERCLA.

o Abandoned site discovery, testing, and clean up.

o Post-closure monitoring and maintenance.

o Support for cost-reimbursement litigation.

Maine

I. Sources of Fund

- A generator tax which varies by type of treatment, storage, or disposal. The tax schedule is as follows:
  - 15¢/gallon - offsite disposal.
  - 9¢/gallon - offsite treatment.
  - 6¢/gallon - offsite recycling.
  - 6¢/gallon - offsite storage for three to six months.
  - 3¢/gallon - offsite storage for each succeeding six months.
  - 10¢/gallon - onsite disposal.
  - 3¢/gallon - onsite storage, per six month period.
  - Onsite recycling and treatment are exempt.
  - Double fees for transport to out-of-state facilities.
- Permit fees on HWM facilities.
- General appropriations.
- A tax on the first instate transfer of crude oil.

II. Uses of Fund

- Emergency response to oil spills.
- Cleanup of unlicensed discharge of hazardous waste.
- Matching funds for CERCLA.
- Equipment for hazardous waste response.
- Reimbursement to municipalities for review of siting applications of HWM facilities.

Maryland

I. Sources of Fund

- Permit fees for HWM facilities.
- General appropriations.

II. Uses of Fund

- Emergency response to hazardous substances in the state's waters.
- Restoration of natural resources damaged by hazardous substances.
- Identification of illegal hazardous substance disposal.

Massachusetts

I. Sources of Fund

- $35 million bond issue.
- Cost reimbursement.
- Penalties and fines.
- Fees on transporters of hazardous substances.

II. Uses of Fund

- Matching funds for CERCLA.
- Purchase of cleanup equipment.
- Restoration of natural resources.

New Hampshire

I. Sources of Fund

- Flat tax on generators of 1¢/kilogram.
- Cost reimbursement.
- Penalties and fines.
- Tax on first instate transfer of crude oil.

II. Uses of Fund

- Emergency response to oil spills.
- Administrative costs of program.
- Cleanup of abandoned sites.
- Monies to municipalities to aid in the siting of HWM facilities.

New Jersey

I. Sources of Fund

- Bond issue.
- Cost reimbursement.
- Penalties and fines.
- Tax on first instate transfer of petroleum, petroleum products, pesticides, 307(A)(1) and 311(B)(2)(A) Clean Water Act pollutants and seven miscellaneous hazardous substances. The fee schedule is:
    - 1¢/barrel on petroleum and petroleum products.
    - 1¢/barrel or .4% of fair market values of other taxed substances, whichever is higher.
    - 4¢/barrel on petroleum and petroleum products if transfer is major.
    - 4¢/barrel or .8% of fair market value, whichever is higher, for major transfer of other substances.

New Jersey (continued)

II. Uses of Fund

- Administration of fund.
- Emergency response.
- Cleanup of abandoned sites.
- All direct and indirect damages to persons.
- Restoration of drinking water supplies.
- Restoration of natural resources.
- Property damages.
- Loss of tax revenues by state or local government for one year.

New Mexico

I. Sources of Fund

- General appropriations.
- Cost reimbursement.

II. Uses of Fund

- Cleanup of spills or dumps.
- Restoration of natural resources.

New York

I. Sources of Fund

- Tax on generators of $12/ton of waste landfilled, $9/ton for offsite treatment, $2/ton for incineration.

New York (continued)

- If waste has not previously been taxed, facility operators pay tax of $12/ton landfilled, $9/ton treated.
- Recycled wastes are tax exempt.
- Penalties and fines.

II. Uses of Fund

- Cleanup of abandoned sites.
- Discovery and investigation of abandoned or illegal sites.
- CERCLA matching funds.
- Emergency response.

North Carolina

I. Sources of Fund

- A tax on HWM facilities operators which varies according to treatment, storage, or disposal method.
- Permit fees.
- General appropriations.
- Cost reimbursement.
- Penalties and fines.

II. Uses of Fund

- Post-closure monitoring and maintenance.
- Emergency response and cleanup of hazardous substance in waters of the state.

Michigan

I. Sources of Fund

- Surcharge on facility operators for wastes received.
- Bond issue.
- General appropriations.
- Cost reimbursement.

II. Uses of Fund

- Post-closure monitoring and maintenance of HWM facilities.
- Emergency response.

Minnesota

I. Sources of Fund

- A tax on facilities operators which varies by treatment, storage or disposal method. The tax schedule is:
    - $32/cubic yard disposed.
    - $16/cubic yard treated, with waste still hazardous.
    - $8/cubic yard treated, with no hazardous residue left.
    - Recycling processes are exempt.
- $5 million in general appropriations.
- Cost reimbursement.

II. Uses of Fund

- Matching fund for CERCLA.
- Discovery and investigation of abandoned sites.
- Compensation for personal damages caused by hazardous waste.

Mississippi

I. Sources of Fund

- Flat tax on facility owners and operators $5.00/ton or $2.00/barrel. 70% of this goes to minicipality in which facility operates.
- General appropriations.

II. Uses of Fund

- Post-closure monitoring and maintenance of HWM facilities.

Missouri

I. Sources of Fund

- Tax on generators of $25/ton sent to a landfill, $2/ton sent out of state.
- $8/person tax on HWM facilities.
- Permit fees.
- General appropriations.
- Cost reimbursement.
- Penalties and fines.
- Federal grants from CERCLA.
- Tax on transporters of hazardous waste.
- Grants and gifts to the fund.

II. Uses of Fund

- Matching funds to CERCLA.
- Purchase contaminated property.
- Restoration of natural resources.
- Conduct epidemiological study of health effects of toxics in the environment.

Nevada

I. Sources of Fund

- General appropriations.
- Cost reimbursement.

II. Uses of Fund

- Emergency response.

Ohio

I. Sources of Fund

- Cost reimbursement.
- Penalties and fines.
- Sale of restored property.

II. Uses of Fund

- Insures proper closure of HWM facilities.
- Cleanup of abandoned sites.
- Emergency response.
- Study of future HWM facilities needs, including an investigation of alternatives to land disposal.

Oklahoma

I. Sources of Fund

- General appropriations of $450,000.

II. Uses of Fund

- Emergency response.
- Purchase of emergency response equipment.
- Aiding local governments in preparing emergency response plans.

Pennsylvania

I. Sources of Fund

- Bond issue (not yet passed), which would approve matching funds for CERCLA.
- Penalties and fines.
- Bond forfeitures.

II. Uses of Fund

- Abatement of danger from hazardous waste management facility.
- (If bond issue passes) Matching funds for CERCLA.

Rhode Island

I. Sources of Fund

- Bond ssue (not yet passed).

II. Uses of Fund

(If Bond Issue Passes)

- Emergency response.
- Development of emergency response contingency plans.
- Emergency response equipment.
- Restoration of natural resources.

South Carolina

I. Sources of Fund

- Flat tax on generators of hazardous waste.
- General appropriations.
- Cost reimbursement.

II. Uses of Fund

- Cleanup of abandoned sites.
- Remedial action.

Tennessee

I. Sources of Fund

- A tax on facilities, graded by degree of toxicity and treatment, storage and disposal method.
- Forfeited bonds.

II. Uses of Fund

- Post-closure monitoring and maintenance at HWM facilities.
- Restoration of natural resources.
- Restoration of damaged property.

Texas

I. Sources of Fund

- General appropriations.
- Federal grants from CERCLA.

II. Uses of Fund

- Matching funds to CERCLA.
- Post-closure monitoring and maintenance of HWM facilities.

Washington

I. Sources of Fund

- Tax on generators graded by degree of toxicity.
- Tax on offsite facility operators, graded on degree of toxicity.
- General appropriations of $4.3 million.

II. Uses of Fund

- Matching funds for CERCLA.
- Administrative costs.
- Restoration of damaged natural resources.

Wisconsin

I. Sources of Fund

- Tax on facilities operators, graded by degree of toxicity.
- General appropriations.
- Cost reimbursement.

II. Uses of Fund

- Post-closure monitoring and maintenance.
- Restoration of drinking water.
- Restoration of natural resources.
- Emergency response.
- Emergency response equipment.

Mr. **Gibbons**. I am sure all of you have seen the little lights in front of you. If you could abide by them, we would appreciate it. The red light means your time is up. The orange one comes on at the end of 4 minutes, and the red one means your time is up.

Mr. Hoffman.

Mr. **Hoffman**. Thank you, Mr. Chairman. My name is Howard Hoffman.

Mr. **Gibbons**. Let me tell all witnesses that we will put your entire statements in the record, if you wish to summarize them.

STATEMENT OF HOWARD J. HOFFMAN, WASHINGTON, DC

Mr. **Hoffman**. I am a tax attorney in private practice here in Washington, DC. I speak only in my individual capacity. I do not represent any client or organization or my law firm. If the record will stay open, Mr. Chairman, for another few days, I will submit a written statement.

I would like to speak today solely of the waste-end tax and particularly of its workability and administerability. It is a new tax, and I consider myself more a student of it than an expert on it.

I think we can all agree that we need more time to study the waste-end tax. Time for study is often a luxury. In the absence of that, I will give you my current thinking now.

I do not want to take a position on whether a waste-end tax should or should not be adopted. I would like to say that if it is adopted, I think it can be made to be workable and administerable, so that at least compared to other taxes, it is neither more complex nor raises more administrative concerns.

Any way that you structure a waste-end tax, complexities would remain. More importantly, the extent of the complexities would depend on environmental policy decisions. I believe that the waste-end tax is 80 percent an environmental provision and 20 percent a tax.

Time does not permit going through all the different elements, many of which have been raised this morning. I would like to speak only about what I believe is one of the thorniest problems: the different activities that would be subject to the tax.

Basically, the intent of H.R. 5640 is to tax land disposal and to tax storage of 1 year or longer, but not to tax treatment, recycling or destroying through incineration. The specific types of taxable activities are as follows:

The most prominent ones are landfill disposal and underground injection. I believe those activities are identifiable, so that a tax placed on them would be fairly well workable.

The next activity is placement in storage for longer than 1 year. Here, too, I believe the activity is identifiable, so that the tax would be workable. From a tax standpoint, taxing storage longer than 1 year makes sense as a backstop to the tax on disposal, but you should be aware that in my view, it is a very strict environmental policy. The policy is that if you store hazardous waste for longer than 1 year, you will be taxed on it, even if at the end of the year, you incinerate it or treat it in some other way that would otherwise be nontaxable.

It is the last area of taxable activities that appears to be the murkiest: waste placed in waste piles, which are mounds or piles of waste; in surface impoundments, which are pits, ponds, or lagoons; and wastes treated through land treatment, which involves spreading waste out on land and allowing it to decompose.

It is unclear whether to tax those activities because it is unclear whether to treat them as disposal, in which case they would be taxed; to treat them as treatment, in which case they wouldn't be taxed; or to treat them as storage, in which case they would be taxed if they are stored for longer than 1 year.

There are many different ways to handle this issue and some would be more workable than others.

I would like to suggest that one possible way of handling it that maximizes workability would be to define these different activities as storage, so that if you place waste in a waste pile or in a surface impoundment or land treatment, and if the waste stays there for more than 1 year and remains hazardous at the end of 1 year, the waste would be treated as if it had been stored, and it would be taxed.

This, I think, would be fairly well-definable and so, in my view, it would be fairly well-administerable and workable from a tax standpoint.

It represents a strict environmental policy. It is consistent with the current treatment of storage. That, too, represents a strict environmental policy.

There are some complexities that would remain, which include how to account for waste that is kept in storage. For example, when waste comes in and goes out on a regular basis, you would need some kind of accounting method.

As I say, there are many other ways of handling these different types of activities. For example, it would be possible to go through the different activities and categorize them as to which are most environmentally sound and exempt those activities from tax.

To do that could make more sense from an environmental point of view. It could be more liberal, but would raise more complexities.

I have discussed today only this one aspect of administerability and workability. Many others remain.

I would be happy to respond to questions.

[The prepared statement follows:]

STATEMENT OF HOWARD J. HOFFMAN, WASHINGTON, DC

I. Introduction.

My name is Howard J. Hoffman. I am a tax attorney in private practice in Washington, D. C. I have an interest in environmental excise taxes. I appear today solely in my individual capacity, and not on behalf of my law firm or any institution or client.

The purpose of my testimony is to review the workability and administerability of the waste-end tax. I do not take a position on whether the waste-end tax should be adopted. If it is adopted, I believe it can be devised to be fairly workable. Nevertheless, the tax will remain complex, and it will present certain administrative and enforcement difficulties.

The waste-end tax needs detailed technical study. Several studies currently underway -- most notably, studies by the E.P.A. as mandated by the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") -- will shed important light on the administerability of the waste-end tax. Nevertheless, time constraints compel consideration of the waste-end tax at the present time. My current thoughts are preliminary, and I present them here in outline fashion. In some instances, time constraints have permitted only the identification of issues.

My testimony will first review the principal elements of the waste-end tax as proposed in H.R. 5640, and then will discuss administrative and enforcement aspects. Throughout, it will be emphasized that the waste-end tax is in large part an environmental measure. The provisions of the tax entail numerous trade-offs between environmental policy and tax simplicity.

II. Elements of the Waste-End Tax.

The waste-end tax may be divided into the following elements: (i) the items subject to the tax, (ii) the activities subject to the tax, and (iii) the taxpayer.

A. Items Subject to Tax.

1. Hazardous waste.

The apparent goal of H.R. 5640 is to levy the waste-end tax on "hazardous waste", as defined under the Solid Waste Disposal Act, if the hazardous waste is disposed of under certain methods.

a. Drafting.

H.R. 5640 levies the tax on "hazardous substances [as defined under CERCLA] required to be disposed of under subtitle C of the Solid Waste Disposal Act" ("Subtitle C"). The principal hazardous substances required to be disposed of under Subtitle C are "hazardous wastes". It is not clear whether there are any other "hazardous substances" that are required to be disposed of under Subtitle C and that H.R. 5640 intends to be subject to the tax.

Unless such other "hazardous substances" can be identified, it may be advisable as a matter of simplicity to levy the tax on "hazardous waste", not "hazardous substances".

b. Workability.

Levying the tax on "hazardous waste" appears to be workable, and does not appear to create significant complexity. The items that are considered to be hazardous waste appear to be clearly specified in the Subtitle C regulations promulgated by E.P.A.

Some administrative difficulty could arise because the I.R.S., in administering the tax, would rely on the list of hazardous waste developed by E.P.A. E.P.A. may revise this list, thereby revising the tax base. This concern does not appear to jeopardize the workability of the tax. Even if E.P.A. revises the list, the hazardous wastes on the revised list would remain clearly identifiable, and thus the tax could continue to be administered.

Moreover, reliance by the I.R.S. on the actions of another agency to the extent required for identification of hazardous waste is not new in tax administration. For example, the tax credit for qualified rehabilitation expenditures under Internal Revenue Code ("I.R.C.") §48(g) is administered as follows: A taxpayer, in order to claim the credit, must obtain certification from the

Department of the Interior. Once such certification is obtained, the credit may be claimed, and the I.R.S. generally does not look behind the certification.

Nevertheless, using the list of hazardous waste as the tax base may put additional pressure on the process by which the E.P.A. lists and delists hazardous waste. For example, industry is likely to object all the more vociferously to adding wastes to the list.

c. State administration.

H.R. 5640 imposes the waste-end tax on "the disposal of any hazardous substance, if such disposal is required to be carried out in compliance with subtitle C". Individual states are assuming administration and enforcement of Subtitle C and are developing their own lists of hazardous wastes subject to regulation. Some states may include more wastes on their lists than do other states. As a technical matter, H.R. 5640, by its terms, raises the possibility that the lists of hazardous wastes developed by the states will provide the base for the waste-end tax. In this case, hazardous wastes may be subject to tax if disposed of in State A, but not in State B.

If a uniform Federal waste-end tax is desirable, H.R. 5640 should be clarified so that only hazardous wastes as defined by E.P.A. regulations are subject to the tax.

2. Measure of the tax: Wet weight vs. dry weight.

H.R. 5640 imposes the waste-end tax on a "wet weight" basis. Some segments of industry have argued for a "dry weight" basis (defined as the weight of waste after subtracting out the weight of any water).

It is generally acknowledged that a tax based on wet weight is more administerable than one based on dry weight. To determine dry weight, either (i) the generator or disposer must test the waste stream to ascertain the non-water (or solids) content, or (ii) the I.R.S. must promulgate regulations defining dry weight on a waste stream basis, a project that could be complex in light of the variety of types of waste streams.

Nevertheless, workability is not the only concern in choosing between wet weight or dry weight. The choice rests in large measure upon a judgment as to how much of the tax burden different industries should bear.

3. Degree of hazard.

Varying the tax rate based on the degree of hazard of the waste is generally regarded as sensible.

a. Degree of hazard approaches.

H.R. 5640 applies a higher tax rate on hazardous substances for which there is in effect under CERCLA a reportable quantity ("RQ") of one pound or less, and a lower tax rate on hazardous substances for which there is in effect an RQ of more than one pound. On May 25, 1983, E.P.A. issued proposed regulations specifying RQs for hazardous substances. I understand that these regulations are expected to be finalized in 1985.

Other recently proposed legislation varies the tax rate in different ways. For example, H.R. 3129 levies a higher tax rate on "toxic hazardous waste", which is defined as "any hazardous waste described in section 1004(5)(A) of the Solid Waste Disposal Act (including all hazardous wastes listed or identified under regulations under section 3001 of such Act as toxic, EP toxic, or acutely hazardous, but not including any hazardous waste which is listed or identified under such regulations because it is ignitible, reactive, or corrosive)." H.R. 3129 levies a lower rate of tax on nontoxic hazardous waste, which is any hazardous waste other than toxic hazardous waste.

Which approach is the most workable -- RQs, toxic v. nontoxic, or some other approach? The answer depends on several variables:

(1) Which approach provides the best indication as to the "hazardousness" of the waste?

(2) Which approach enables the taxpayer and the tax administrator to determine the most easily the tax rate to which a particular waste is subject (i.e., how are hazardous substances required to be labelled)?

(3) If it is desirable to develop further the degree of hazard approach, i.e., by developing more than two categories of hazardous wastes taxed at different rates, which approach best facilitates such development?

b. Under H.R. 5640, the amount of tax depends in part on whether there is in effect an RQ under CERCLA for the hazardous substance. Under CERCLA, certain activities are exempted from the RQ notification requirements. 42 U.S.C. 9603(f). For example, in general no RQ notification is required in the case of any release of a hazardous substance, which release is reported under Subtitle C (i.e., disposal by a permitted Subtitle C facility). The RQ provision of H.R. 5640 should be clarified to assure that it applies regardless of whether the taxed activity gives rise to an RQ notification obligation under CERCLA.

4. Mixture rule.

Under H.R. 5640, if a quantity of waste includes two hazardous substances to which different rates of tax apply, the entire quantity is taxed at the higher rate (the "Mixture Rule").

a. Advantages of the Mixture Rule.

(1) Taxpayers are given an incentive to separate the low-tax waste from the high-tax waste. Taxpayers may be more likely to neutralize, incinerate, or recycle waste once it has been separated into its constituent parts.

(2) Under the Mixture Rule, waste would have to be evaluated only to the extent of determining whether any high-tax substances are present. If they are, the highest tax rate would apply to the entire quantity of waste.

b. Disadvantages.

(1) The incentive described above is not complete. Taxpayers are not given an incentive to separate different types of waste that are subject to the same rate of tax (*i.e.*, there is no incentive to separate one type of high-tax waste from another).

(2) Although taxpayers will have the incentive described above, it is possible that in many instances, taxpayers will not recycle, treat, or incinerate the separated wastes, but rather will simply dispose of all the wastes. Under these circumstances, the incentive to separate wastes will be fruitless, and taxpayers will face the choice of (i) paying the higher rate of tax on their entire waste stream, or (ii) incurring expenses to separate wastes, which separation may not result in better waste management.

(3) The Mixture Rule may lead to unduly harsh results in instances in which a large amount of low-tax waste is mixed with a small amount of high-tax waste.

(4) The Mixture Rule may be made more complicated if the affected industry exerts pressure for exemptions and/or a de minimus rule.

c. Recommendation.

Consideration should be given to eliminating the Mixture Rule, and taxing a quantity of hazardous waste based on the various types of waste (i.e., low-tax waste and high-tax waste) present in such quantity. Under this approach, complexity may arise to the extent that (i) additional analysis of waste quantities would be required, and (ii) the weight of nonhazardous elements in the waste quantity would be required to be allocated among the high-tax waste and the low-tax waste.

5. Addition of nonhazardous substances.

Under certain circumstances, nonhazardous substances may be added to hazardous waste in order to facilitate treatment or disposal. For example, cement may be added to hazardous waste at the time of disposal in order to stabilize the waste.

Under H.R. 5640, it is unclear whether the weight of such additional nonhazardous substances would be subject to the tax. It appears to be H.R. 5640's intention to tax the weight of the additional nonhazardous substances under some circumstances, such as rinse water that is disposed by underground injection. However, under other circumstances, such as the addition of stabilizing material, it is arguable that the weight of such additional material should not be taxed. Clarification is needed.

B. Taxable activities.

The issue of which activities should be subject to tax presents some of the thorniest administrative difficulties. In discussing this issue, this testimony will review (i) which activities H.R. 5640 apparently intends to tax, (ii) a recommended approach to taxing these activities, and (iii) a brief discussion H.R. 5640's approach.

1. Intention of H.R. 5640.

It is my understanding that H.R. 5640 intends to treat the various methods of waste treatment, storage, and disposal as follows:

a. Taxable activities.

Taxable activities include:

(1) Disposal in landfills.

(2) Disposal by underground injection.

(3) Disposal in surface impoundments, waste piles, and land treatment, if placement of waste in those sites is considered to be disposal (except for disposal of wastewater pursuant to the Clean Water Act).

(4) Storage of waste for more than one year.

b. Nontaxable activities.

(1) Recycling.

(2) Treatment.

(3) Incineration.

(4) Disposal for energy recovery in accordance with Subtitle C standards, if EPA commissioned a study certifying that the energy recovery facilities are in compliance with such standards.

(5) Disposal of waste water under the Clean Water Act.

(6) Treatment in a waste water facility utilizing biological activity or carbon adsorption treatment in accordance with Subtitle C standards.

(7) Disposal of certain waste required to be studied.

(8) Disposal of waste in the course of carrying out CERCLA removal or remedial action.

c. Notes.

(1) Hazardous residues from treatment, recycling, or incineration would be subject to tax if disposed of or stored in a taxable manner.

(2) The storage rule appears to be widely accepted; it was included in most of the various bills proposing a waste-end tax. The storage rule appears to be sensible as a backstop to the tax on disposal because it prevents taxpayers from avoiding the tax on disposal merely by storing the waste.

The storage rule represents a strict environmental policy. Waste stored for longer than one year is taxed even if the waste is stored as safely as possible and even if the waste ultimately is managed in an otherwise nontaxable manner, i.e., by being recycled, incinerated, or treated.

2. Issues raised under H.R. 5640.

a. H.R. 5640's general rule.

H.R. 5640 sets out a general rule defining the taxable activity as "disposal of any hazardous substance, if such disposal is required to be carried out in compliance with subtitle C of the Solid Waste Disposal Act." "Disposal" is defined as under Subtitle C.

By defining the taxable activity by cross-reference to Subtitle C (and, by implication, the regulations promulgated thereunder), H.R. 5640 creates several ambiguities:

(1) Under the Subtitle C regulations, it may be unclear whether placing hazardous waste in surface impoundments, waste piles, and land treatment should be considered (i) "disposal" (and thus taxable), (ii) treatment (and thus nontaxable), or (iii) storage (and thus taxable only if kept in storage for longer than one year).

(2) Because many states have assumed the administration and enforcement of Subtitle C, it may be necessary to refer to the manner in which different states treat various types of "disposal". Complexity and lack of uniformity may result.

b. H.R. 5640's exemptions.

(1) H.R. 5640 exempts from tax, among other things, "disposal by incineration". Incineration generally is not defined as "disposal" under the Subtitle C regulations. Accordingly, this specific exemption does not appear to be necessary.

(2) By adding several exemptions, H.R. 5640 raises an issue as to how to treat waste that is treated, recycled, or used in an environmentally questionable manner. For example, waste oil into which hazardous waste has been mixed may be sprayed on dirt roads (to control dust) or burned as home heating fuel. Such uses may be considered treatment, recycling, or energy recovery, and may be permissible under Subtitle C regulations.

3. Suggested approach.

There are numerous methods for determining which activities should be subject to tax, depending on which mix of environmental policy and tax complexity is selected. The following is one suggested approach that attempts to maximize workability and balance environmental policy in way that is fairly consistent with the apparent intention of H.R. 5640.

a. Taxable activities.

The following activities would be subject to tax:

(1) Disposal in landfills.

(2) Disposal by underground injection.

(3) Storage for longer than a one-year period.

(4) Placement in surface impoundments, waste piles, and land treatment, if the waste remains at those sites for more than one year and if the waste remains hazardous after one year.

(a) Notes.

(i) This approach resolves the ambiguity concerning surface impoundments, waste piles, and land treatment by treating such methods, in effect, as storage.

(ii) This approach is consistent with the Storage Rule.

(iii) This approach has the advantage of simplicity in that it is not necessary to specify which methods of using surface impoundments, waste piles, and land treatment are "good" and should be tax exempt.

(iv) This approach represents a strict environmental policy.

(v) Some complexities would remain. For example, it may be difficult to ascertain whether land treated waste remains hazardous after one year. Other complexities are discussed below in the section on Storage Rule.

(vi) Hazardous residues from incineration or recycling, etc. would be taxed if handled in a taxable manner.

(vii) As an alternative approach, it may be possible to determine which uses of surface impoundments, waste piles, and land treatment constitute "disposal", and thus are taxable, and which constitute "treatment", and thus are tax-exempt. The determination could be made by Congress or E.P.A. (by regulations). This approach could facilitate better environmental policy, but it could add tax complexity.

(5) There would be specific exemptions from tax for:

(a) Waste water treatment regulated under the Clean Water Act.

(b) Disposal of waste required to be studied.

(c) Disposal of waste in the course of carrying out CERCLA removal or remedial action.

b. Nontaxable activities.

(1) Nontaxable activities would include all specifically exempted activities and all activities other than taxable activities. Thus, all forms of incineration, recycling,

energy recovery, and any treatment method that neutralizes the hazardous waste within one year would be exempt.

(2) This approach represents relaxed environmental policy to the extent that treatment or recycling methods would generally be tax-exempt even though some may regard them as environmentally questionable. As a matter of environmental policy, this approach would rely on EPA to control by regulations those treatment methods.

(3) This approach has the advantage of simplicity in that there is no need to list which methods of treatment, recycling, or destruction are "good" and thus tax-exempt.

(4) In determining whether to exempt an activity, the following incentive considerations should be borne in mind:

(a) Each additional exempted activity reduces the incentive to reduce waste generation.

(b) Each additional exempted activity may generate pressure to exempt similarly situated activities.

(c) Each additional exempted activity increases the incentive to dispose of waste through the exempted method, as opposed to through (i) more desirable methods (such as recycling) or (ii) less desirable methods (such as landfill).

4. Technical Aspects of the Storage Rule.

Taxing hazardous waste placed storage after one year (the "Storage Rule") raises several technical issues that should be addressed. These issues apply to all methods of handling hazardous waste that are treated as storage, such as the placement of waste in surface impoundments, waste piles, and land treatment, under the approach suggested above.

a. Deferral.

Under the Storage Rule, taxpayers may store hazardous waste for up to 12 months, and then dispose of the waste, thereby deferring tax for the 12-month storage period. Well-advised taxpayers will take advantage of this deferral period, at least so long as the savings from the one-year deferral exceed the costs of storage.

To discourage this deferral, consideration should be given to applying an interest rate to the tax, if any, ultimately paid with respect to hazardous waste that is stored, beginning from the date that the hazardous waste is placed in storage. The interest rate could be the same as that determined under I.R.C. §6621.

b. Accounting.

The storage rule will lead to complexity in accounting for stored hazardous waste. For example, assume that on Day 1, a quantity of waste already is in storage, and over the next 12 months, (i) new hazardous waste is added, and (ii) stored hazardous waste is taken out. Taxpayers may have to adopt a last-in-first-out ("LIFO") or a first-in-first-out ("FIFO") rule. The complexity would be exacerbated if some hazardous waste escapes through leachate, evaporation, etc. The complexity would be further exacerbated if water is used to carry hazardous waste into the storage facility, and some of the water is then removed or recycled. In this later case, consideration should be given to exempting from tax the weight of the removed or recycled water.

c. Grandfather provisions.

H.R. 5640 would tax hazardous waste in storage on the effective date of the tax, if the waste remains stored for longer than one year. It is arguable that hazardous waste in storage on the date the tax takes effect should be excluded from tax under a grandfather provision. However, because of the delayed effective date of the tax, it may also be argued that no grandfather provision is needed.

d. Storage for recycling, etc.

Consideration should be given to exempting storage of hazardous waste from the Storage Rule if the waste is stored pending recycling, incineration, or other acceptable disposition of the waste. This exemption would have the effect of encouraging storage of waste pending technological advances in waste management. However, this exemption could add complexity.

5. Avoidance of double taxation.

Arguably, waste that has been taxed once, and waste disposed of before the waste-end tax takes effect, should not be taxed again. Thus:

a. Waste taxed under the Storage Rule should not be taxed again upon disposal.

b. Waste removed from a disposal site and re-disposed of should not be taxed.

c. Contaminated rain water collected from a disposal site and disposed of should not be taxed because it includes previously taxed waste (or waste disposed of before the waste-end tax took effect).

6. Uncertain areas.

a. Should accidental releases of hazardous waste be taxed?

b. Should ocean disposal be taxed?

c. The imposition of a tax may encourage waste generators to change the form of hazardous waste, *i.e.*, to change a solid waste to a gas that can be disposed of in the air without incurring tax liability. Such a practice would appear to be a legal means of tax avoidance. Would such a practice raise environmental concerns?

d. A lower tax rate on underground injection could lead taxpayers to dilute waste and dispose of it through underground injection. Would such a practice be cause for concern?

C. Taxpayers.

1. Waste disposer or storer.

It is generally agreed that the taxpayer should be the person disposing of or storing the waste. In the case of off-site disposal or storage, it is generally agreed that the taxpayer should be the facility owner or operator. Placing the tax on these persons, as opposed to the generator of the waste, will minimize the number of taxpayers.

Should some mechanism be imposed to assure that the tax is passed on by the taxpayer to the generator (if the two are different persons)?

2. Small quantity generators.

It has been suggested that the waste-end tax creates administerability problems because the tax would be imposed on numerous -- as many as hundreds of thousands -- of businesses that generate small quantities of hazardous waste ("small quantity generators"). I respectfully suggest that these concerns are unfounded because administerability problems relating to small quantity generators can be rather easily remedied.

a. Waste disposal practices of small quantity generators.

For the most part, small quantity generators that produce hazardous waste ship their waste off-site for storage, treatment, or disposal by landfill, or dispose of waste into sewer lines connected to publicly owned treatment works. (There is some longer term on-site storage of hazardous waste by small quantity generators, and there may be some small amounts of disposal by other means, such as on-site disposal or underground injection. However, because these activities are relatively small, the question of the impact of small quantity generators on the administerability of the waste-end tax may be resolved by reference to the off-site shipment described above.)

b. H.R. 5640.

Under H.R. 5640, the tax must be paid by the owner or operator of a permitted disposal facility ("Subtitle C Facility"), or, in the case of disposal at other than such a facility, by the disposer. The tax applies only in the case of hazardous substances the disposal of which "is required to be carried out in compliance with subtitle C". There are many small quantity generators of hazardous waste who dispose of waste at facilities other than Subtitle C Facilities ("Nonsubtitle C Facilities") and who are subject to some of the regulations under Subtitle C, although not the full panoply of regulations. Accordingly, as a technical matter, it appears that H.R. 5640 would treat these small quantity generators, or the Nonsubtitle C Facilities at which they dispose hazardous waste, as taxpayers.

c. Recommendation.

It does not appear the intent of H.R. 5640 to subject small quantity generators to tax in the manner and to the extent described above. To eliminate this concern, H.R. 5640 could be amended to subject to tax hazardous waste disposal only if such waste is required to be disposed of at a Subtitle C Facility and, if such waste is transferred off-site, only if such waste is subject to the manifest requirements. Under this arrangement, Subtitle C Facilities would remain the only taxpayers with respect to most hazardous waste disposed of by small quantity generators. Small quantity generators and Nonsubtitle C Facilities generally would not become taxpayers.

The following describes the extent to which hazardous waste generated by small quantity generators would be subject to tax under this recommendation in light of (i) current Subtitle C regulations and (ii) current legislative proposals to revise the small quantity generator rules, which proposals have passed the House and Senate.

(1) Current EPA regulations.

Under current EPA regulations, small quantity generators are defined as persons who, in general, generate less than 1,000 kg/mo of hazardous waste. 40 CFR

261.5(a). Small quantity generators who dispose of waste off-site must dispose of waste either in (1) Subtitle C Facilities or (2) Nonsubtitle C Facilities (including state-licensed municipal or industrial solid waste facilities or facilities that use or recycle the hazardous waste). 40 CFR 261.5(g)(3). If the small quantity generator generates certain amounts of "acutely hazardous waste", such acutely hazardous waste must be disposed of only at Subtitle C Facilities. 40 CFR 261.5(e). Small quantity generators are required to provide manifests only for acutely hazardous wastes required to be disposed of at Subtitle C Facilities. 40 CFR 261.5(b).

(2) Current legislation.

(a) H.R. 2867

In general, H.R. 2867, which has been approved by the House, tightens the treatment of small quantity generators as follows:

(i) For generators who generate between 25 kg/mo and 1,000 kg/mo of hazardous waste, effective 90 days after enactment, all off-site shipments of hazardous waste must be accompanied by a particular type of manifest (the "EPA Uniform Hazardous Waste Manifest"), regardless of where the waste is disposed of.

(ii) For generators that produce between 100 to 1,000 kg/mo hazardous waste, under regulations to be promulgated by E.P.A. and to take effect no earlier than 2 years after enactment, all off-site shipments of hazardous waste must be accompanied by a manifest and all treatment, storage, and disposal must occur at Subtitle C Facilities. (For generators of between 100 kg/mo and 1,000 kg/mo, this requirement will supercede the above requirement for the EPA Uniform Hazardous Waste Manifest.)

(iii) For generators that produce 100 kg/mo or less hazardous waste, E.P.A. is given discretion to regulate.

(iv) The current regulatory requirements for acutely hazardous waste may remain in effect.

(v) If the E.P.A. fails to promulgate the new regulations identified above after two years following the effective date of the legislation, hazardous waste generated by generators of between 100 kg/mo and 1,000 kg/mo will be subject to the same requirements as hazardous waste generated by larger generators until the regulations are promulgaged.

(b) S. 757.

In general, S. 757, which was approved by the Senate on July 25, 1984, tightens the treatment of small quantity generators, albeit not as much as H.R. 2867, as follows:

(i) For generators who generate between 100 kg/mo and 1,000 kg/mo, effective 270 days after enactment, hazardous waste shipped off-site must be accompanied by the EPA Uniform Hazardous Waste Manifest.

(ii) EPA is required to study the problem of small generators.

(iii) For generators of between 100 and 1,000 kg/mo hazardous waste, under regulations to be promulgated by the E.P.A. no later than March 31, 1986, treatment, storage, or disposal in general may occur only at Subtitle C Facilities.

(iv) For generators that produce 100 kg/mo or less, E.P.A. is given discretion to regulate.

(v) The current regulatory requirements for acutely hazardous waste may remain in effect.

(vi) If E.P.A. has not promulgated the regulations referred to above by March 31, 1986, generators who generate between 100 and 1,000 kg/mo of hazardous waste must dispose of the waste at a Subtitle C Facility and must manifest the waste until such regulations are promulgated.

c. "Midnight dumping".

Note that even under the recommended change, small quantity generators would be subject to tax if they illegally dispose of waste that they are required to manifest and to dispose of at a Subtitle C Facility. This proposition raises administerability concerns that are part of a larger concern about midnight dumping in general, which is discussed below.

IV. Administration and Enforcement of the Waste-End Tax.

A. Recordkeeping.

To administer the waste-end tax in the most effective manner, taxpayers must be required to keep adequate records. As discussed below, records are necessary for several purposes. It appears that taxpayers can be required to keep the necessary records without undue burden, and that current recordkeeping requirements under RCRA, with minor revisions, would be adequate for this purpose. Nevertheless, the current recordkeeping requirements do not appear to be adequate for certain other important purposes.

1. Basis for imposition of the tax.

In order to impose the waste-end tax, the taxpayer must be required to identify with reasonable precision (i) the type of hazardous waste, (ii) the quantity of hazardous waste, and (iii) the manner in which the waste was disposed or stored (or the equivalent thereof). Moreover, these requirements should not be unduly burdensome to the taxpayer.

It appears that taxpayers can be required to keep these records without undue burden. The recordkeeping requirements under Subtitle C, applicable to both on-site facilities and off-site facilities, generally would suffice. See, e.g., 40 CRF

264.73 (operating log). Some revisions in these Subtitle C recordkeeping requirements may have to be made because under these rules, (i) estimates of quantity are acceptable, and (ii) the reporting methods may not be uniform (i.e., it may be permissible to report either by weight or volume, with further permissible variations within each method). 40 CFR 264 Appendix 1. These rules may have to be tightened for purposes of administering a tax.

2. Revenue estimates.

Because the current Subtitle C requirements do not require that type and quantities of hazardous waste be reported to E.P.A. on an annual basis, it seems clear that revenue estimates for the waste-end tax are problematic.

3. Cross-checks with E.P.A..

Taxpayers, in reporting the tax owed, would be required to make certain records available to the I.R.S. Were taxpayers and other persons such as generators and transporters also required to submit information about the hazardous waste to the E.P.A. under Subtitle C, the I.R.S., in enforcing the tax, could benefit by cross-checking with the E.P.A. By analogy, the I.R.S., in enforcing the income tax, cross-checks information on a tax return with information supplied by wage withholders, filers of other information returns, etc. It seems clear that the current Subtitle C requirements on information reporting to the E.P.A. should be substantially strengthened to allow such cross-checking.

B. Shared administration and enforcement.

Currently, the E.P.A. administers and enforces Subtitle C, but more and more states are assuming such administration and enforcement. It is likely that the I.R.S. will be given the task of administering and enforcing the waste-end tax.

Under these circumstances, it may be difficult to administer and enforce both the waste-end tax and Subtitle C in an efficient manner, without undue duplication by federal and state agencies, and without undue additional burdens on the affected industries. Although other taxes involve some overlap between the I.R.S. and another agency (*e.g.*, the qualified rehabilitation tax credit, under I.R.C. §48(g)), there does not appear to be any tax that presents this challenge to the same degree as the waste-end tax. The following are some very preliminary thoughts on how to minimize overlap and inefficiency.

1. Have E.P.A. administer the tax?

Earlier versions of H.R. 5640 labelled the waste-end tax a "fee" and authorized the E.P.A. to collect it. *E.g.*, H.R. 4813. This alternative has obvious benefits. However, its detriments include the following:

a. To a large extent, individual states, not E.P.A., administer Subtitle C. Accordingly, administrative overlap may continue even if E.P.A. administers the tax.

b. The I.R.S. is better equipped than E.P.A. to administer revenue collection. Procedures for collecting revenues, providing refunds, settling disputes, etc. are better established at the I.R.S.

2. Information and resources sharing.

Perhaps information, resources, and personnel within E.P.A., I.R.S., and the states can be shared in administering and enforcing the tax. For example, under the income tax, individual states and the I.R.S. have information sharing "treaties". Perhaps the same could be developed for the waste-end tax.

C. Midnight dumping.

The issue of midnight dumping involves several separate questions: (i) will a waste-end tax provide incentive for midnight dumping, and (ii) if so, can midnight dumping be detected and deterred.

1. Incentive for midnight dumping.

It appears that if the waste-end tax provides an incentive for taxpayers to reduce hazardous waste generation and to recycle hazardous waste, etc., the tax will also provide an incentive to midnight dump. The two incentives appear to be opposite sides of the same coin.

It is difficult to determine whether, and to what extent, the waste-end tax would provide incentives to better manage hazardous waste or to midnight dump. Recently published materials concerning the experiences of states with waste-end taxes do not provide evidence that the state waste-end taxes provide incentive either to reduce hazardous waste generation or to midnight dump. Nevertheless, it appears to be a reasonable operating assumption that almost any tax generates incentives to avoid and evade, and that the same holds true for the waste-end tax.

2. Detection and deterrance.

Midnight dumping, if it occurs as a result of the waste-end tax, can be detected and deterred if (i) adequate legal authority exists, (ii) adequate enforcement resources exist, and (iii) adequate detection methodologies exist.

a. To assure the existence of adequate legal authority, the enforcing agency should be empowered to conduct investigations, impose penalties, etc.

b. To assure the existence of adequate enforcement resources, sufficient funds and skilled personnel -- ranging from tax collectors to engineers, scientists, and "gumshoes" (or "hard-nosed" investigators) -- would be required.

c. Detection methodologies may prove adequate for some, but not all, types of midnight dumping. Surveillance and various forms of monitoring may prove effective in some instances. Moreover, scientific and engineering data may enable an agency to estimate how much hazardous waste a generator likely produced, which information could be compared with the amount of hazardous waste the generator claimed to produce. By analogy, methods of income reconstruction aid the I.R.S. in enforcing the income tax.

Nevertheless, midnight dumping could be difficult to detect in many instances. Practices that are particularly hard to detect include (i) underreporting of waste disposed of on-site and (ii) mixing of hazardous waste with less or non-hazardous waste.

3. Perspective.

In attempting to come to a reasonable conclusion about the extent to which the prospect of undetectable midnight dumping jeopardizes the workability of the waste-end tax, comparisons should be drawn with other taxes. The income tax is afflicted by tax evasion, and many forms of evasion are very difficult to detect (particularly when the evasion involves illegally earned income). More enforcement resources would reduce income tax evasion, and the tax remains administerable notwithstanding tax evasion. Would the same be true of the waste-end tax?

4. Burden on the I.R.S.

It would particularly difficult for the I.R.S. -- a tax collection agency -- to enforce against midnight dumping. Additional resources and personnel -- perhaps in conjunction with E.P.A. or state enforcement efforts -- may be required.

Nevertheless, to place the matter in perspective, the I.R.S. presently is called upon to enforce a tax system that touches a wide variety of substantive legal areas. For example, administration and enforcement of the windfill profits tax requires expertise in energy law, and enforcement of certain taxes -- *i.e.*, the excise taxes on sills and alcohol -- has often required a concerted investigative effort. Are these other areas roughly comparable to the waste-end tax?

V. Impact on State Waste-End Taxes.

Numerous states have developed waste-end taxes. The following issues with respect to workability are presented:

A. Complexity for Taxpayers.

A federal waste-end tax would increase complexity for taxpayers who already are subject to varying state waste-end taxes.

Nevertheless, to place the matter in perspective, there are many areas of taxation -- including corporate and individual taxes -- in which taxpayers confront varying state and Federal taxes.

B. Coordination with State Taxes.

1. Proposal for a state tax credit.

Consideration should be given to coordinating the Federal waste-end tax with state taxes by providing a credit against the Federal tax for state taxes paid. This proposal could work in a fashion comparable to the current credit against the Federal estate tax for state death taxes.

For this credit system to be workable, state taxes would be creditable only to the extent the state taxes were comparable to the Federal tax in terms of (i) substances subject to the state tax, (ii) activities subject to the state tax, and (iii) persons subject to the state tax. The amount of the credit could be a specified percentage of the Federal tax rate. State taxes would not be creditable to the extent they exceeded the specified percentage or to the extent they were levied on substances, activities, and persons not subject to the Federal tax.

2. Effects.

The following effects may occur, based in part on the experience with the state death tax credit for the Federal estate tax:

a. States may revise their waste-end taxes to be consistent with the Federal tax, so that the state taxes would be creditable against the Federal tax. Greater uniformity and administerability would result. It could be easier for the states and the I.R.S. to share administration and enforcement responsibilities.

b. States may impose waste-end taxes at least at the maximum rate creditable.

c. Revenue sharing in effect would occur. Waste-end tax revenues that would flow into the Federal Superfund in the absence of a credit would flow to the states.

Mr. Gibbons. We are going to have to break now. We are well into a vote. We will be right back.

[Recess.]

Mr. Gibbons. All right, let's get back to it.

Mr. Seibert of the National Association of Manufacturers, we welcome you here, sir.

STATEMENT OF H. RICHARD SEIBERT, VICE PRESIDENT, RESOURCES AND TECHNOLOGY DEPARTMENT, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. Seibert. Mr. Chairman and distinguished members of the committee, I am Richard Seibert, vice president of the resources and technology department of the National Association of Manufacturers.

NAM believes that Superfund's primary objective must be kept in sight. It has been suggested by some that Superfund should become a permanent, growing fixture, available to serve a variety of societal ends but nurtured primarily by only one societal segment, industry.

Three and a half years ago, a $1.6 billion Superfund was created. Today, the leading proposals would raise over $9 billion, more than a 500-percent increase. We think that Superfund should be a sharply focused effort to remedy problem sites and ultimately be retired.

We fear that Congress is lacking important information needed to legislate effectively.

Section 301(a)(1) of existing Superfund law requires that the President submit by December 1984 a comprehensive report on experience with the implementation of the law.

The EPA has indicated that it will be able to produce the report at least 2 months in advance of this deadline. Several sections of this report will deal with issues which could significantly affect the decisions of this committee as to what level of revenue is needed and appropriate.

In addition, the report would help the committee determine the extent to which remedial actions are being carried out through voluntary settlements which do not result in moneys going in and out of the fund.

H.R. 5640 would not repeal section 301. Consequently, if this proposal becomes law, the President would still have to make the report and recommendations, even though the Congress had already locked in for 5 years a new schedule of taxes plus disruptive program changes.

The Ways and Means Committee could help avoid this by recommending that no new taxes be legislated until the President's report has been submitted.

We also believe that revenue needs are impossible to appraise. The true cost of this legislation cannot be derived from a simple examination of the amount raised to clean up abandoned hazardous waste sites.

H.R. 5640 contains a number of open-ended provisions entailing the outlay of Federal funds which make accurate estimates of revenue impacts very difficult, if not impossible.

Underground storage tanks. The legislation commits EPA to use moneys, collected expressly for the purpose of hazardous waste remedial actions, to establish a new program to address problems caused by leaking underground storage tanks.

You just heard Mr. Thomas of EPA estimate the revenue requirements for the implementation of such a program.

Remedial standards: The amount of revenue needed to clean up a given number of hazardous waste sites is dependent, of course, on the degree to which each site is cleaned up.

Under H.R. 5640, it is impossible to predict to what degree any site will be cleaned up.

A new section of CERCLA would provide that, if any standard under the Toxic Substances Control Act, the Safe Drinking Water Act, the Clean Air Act, the Clean Water Act, or water quality criteria under the Clean Water Act is applicable to the hazardous substance concerned, the remedial action shall require a level or standard of control for such hazardous substance which is equivalent to whichever of such standards or criteria the Administrator determines to be most stringent.

This approach could result in the expenditure of large sums of money in pursuit of standards which were never intended for waste disposal. A determination of what is most stringent would be highly subjective, making any estimate of revenue needs impossible.

This committee should also be aware of other fiscal impacts of this legislation. The Federal cause of action contained in H.R. 5640 would allow claims to be made against the Federal Government for personal injury damages following from the release of a hazardous substance.

The U.S. Government is the largest generator of hazardous substances in the country, and would presumably become the single largest defendant in toxic tort litigation.

The costs defy quantification, but for comparison purposes, litigation under the swine flu vaccination program involved damages in excess of $4 billion.

The Post Closure Liability Trust Fund was created by Congress in 1980 to ensure that funds would be available should any sites permitted under the Resource Conservation and Recovery Act require remedial action in the future.

It is important to remember that this fund was established to deal with RCRA, and not CERCLA facilities.

Section 502 of H.R. 5640 would repeal the Post Closure Liability Trust Fund. NAM believes repeal would be a mistake. We respectfully urge the committee to recommend deferral of action on H.R. 5640.

Thank you. We would be pleased to respond to any questions you may have.

Mr. GIBBONS. Thank you, Mr. Seibert.

[The prepared statement follows:]

STATEMENT OF THE NATIONAL ASSOCIATION OF MANUFACTURERS BY H. RICHARD SEIBERT, VICE PRESIDENT, RESOURCES AND TECHNOLOGY DEPARTMENT

Mr. Chairman, Members of the Committee, I am Richard Seibert, Vice President of the Resources and Technology Department of the National Association of Manufacturers (NAM). The National Association of Manufacturers is a voluntary business association of more than 13,000 corporations, large and small, located in every state. Members range in size from the very large to more than 9,000 smaller manufacturing firms, each with an employee base of less than 500. NAM member companies employ 85 percent of all workers in manufacturing and produce over 80 percent of the nation's goods. NAM is affiliated with an additional 158,000 businesses through its Associations Council and the National Industrial Council. NAM members have a deep interest in the effectiveness of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund, and therefore appreciate this opportunity to testify on H.R. 5640, the "Superfund Expansion and Protection Act of 1984." My testimony today will focus on Title V of the bill and how it relates to other parts of the legislation and the goals of the statute. Other sections of H.R. 5640 contain provisions of concern to NAM, and are enumerated as a brief appendix to my statement.

I. SUPERFUND'S PRIMARY OBJECTIVE MUST BE KEPT IN SIGHT

The primary objective of Superfund, which we fear is in danger of being relegated to a lesser priority, is the mitigation of threats to public health and the environment arising from problem hazardous waste sites. While estimates may differ as to the number of such sites requiring remedial action, eventually all such sites will be identified and remedied. If the law governing current waste management practices, the Resource Conservation and Recovery Act, is effectively administered and enforced, no new Superfund sites will be created. Once all problem sites are remedied, Superfund can and should go out of business.

It has been suggested by some, however, that Superfund should become a permanent, growing fixture, available to serve a variety of societal ends but nurtured primarily by only one societal segment, industry. Three and one half years ago, a $1.6 billion Superfund was created. Today, the leading proposals would raise over $9 billion, more than a 500 percent increase. What can we expect the next time around? We think we have the right to expect a sharply focused effort to remedy problem sites and ultimately retire Superfund.

II. CONGRESS IS LACKING IMPORTANT INFORMATION NEEDED TO LEGISLATE EFFECTIVELY

Section 301(a)(1) of existing Superfund law requires that the President submit by December 1984 a comprehensive report on experience with the implementation of the law. The Environmental Protection Agency has indicated in testimony that it will be able to produce the report at least two months in advance of this deadline. Several sections of this report will deal with issues which could significantly affect the decisions of this Committee as to what level of revenue is needed and appropriate. These include:

A summary of past receipts and disbursements from the Fund;

A projection of any future funding needs remaining after the expiration of authority to collect taxes;

The record and experience of the Fund in recovering Fund disbursements from liable parties;

The impact of Superfund taxes on the Nation's balance of trade; and,

The extent to which the tax burden falls on the substances and parties which create the problems addressed by Superfund.

Based on this report, the President is to include "any recommendations for legislative changes he may deem necessary for the better effectuation of the purposes" of CERCLA, including recommendations concerning the authorization levels and taxes. This report would be quite valuable to this Committee and the Congress as they deliberate the reauthorization of Superfund. Yet, the House is poised for full floor consideration of H.R. 5640 early next month, a full two months before the report will be available and more than a year before the revenue raising authorities in Superfund expire.

The report would help fulfill the Committee's need to get a fix on the extent to which remedial actions are being carried out through voluntary settlements which do not result in monies going in and out of the Fund.

H.R. 5640 would not repeal Section 301. Consequently, if H.R. 5640 becomes law, the President would still have to make the report and recommendtions even though the Congress had already locked in for five years a new schedule of taxes plus disruptive program changes.

The Ways and Means Committee could help avoid this by recommending that no new taxes be legislated until the President's report has been submitted, provided the report is submitted in a timely manner.

III. CAN EPA EFFICIENTLY AND EFFECTIVELY SPEND THE REVENUES PROVIDED FOR IN H.R. 5640?

We have serious doubts that the Environmental Protection Agency can effectively and efficiently spend approximately $2 billion per year on new projects. We are unconvinced that any bureaucracy can manage a 500% growth in a program almost overnight without a significant amount of waste. EPA will have to dramatically increase and train its manpower, award and monitor contracts, negotiate cleanup agreements, assess effectiveness and make needed corrections under the watchful scrutiny and pressure, of Congress and the glare of publicity. The urge to spend could overcome the obvious need to spend wisely.

It is in everyone's interest that the problem sites be remedied as quickly as possible. It should be of equal concern, however, that the remedial actions be well-planned and well-executed.

IV. REVENUE NEEDS IMPOSSIBLE TO APPRAISE

The true cost of this legislation cannot be derived from a simple examination of the amount raised to clean up abandoned hazardous waste sites. H.R. 5640 contains a number of open-ended provisions entailing the outlay of federal funds which make accurate estimates of revenue impacts impossible.

Underground storage tanks.—The legislation commits EPA to use monies, collected expressly for the purpose of hazardous waste remedial actions, to establish a new program to address problems caused by leaking underground storage tanks. Despite the fact that the leaking substances in question could be regulated under a variety of existing environmental laws, the Energy and Commerce Committee has chosen to use Superfund to effect a remedy. EPA estimates that revenue requirements for the implementation of such a program, considering the large universe of underground storage tanks, could be $400 million-to-$1 billion per year. This would create a sizeable distraction from Superfund's primary objective of remedying problems associated with problem hazardous waste sites.

Remedial standards.—The amount of revenue needed to clean up a given number of hazardous waste sites is dependent, of course, on the degree to which each site is cleaned up. Under H.R. 5640, it is impossible to predict to what degree any site will be cleaned up.

A new Section 104(c)(4)(B)(ii) of CERCLA would provide that, if any standard under the Toxic Substances Control Act, the Safe Drinking Water Act, the Clean Air Act, the Clean Water Act, or water quality criteria under the Clean Water Act is applicable to the hazardus substance concerned, the remedial action shall require a level or standard of control for such hazardous substance which is equivalent to whichever of such standards or criteria the Administrator determines to be most stringent.

This approach could result in the expenditure of large sums of money in pursuit of standards which were never intended for waste disposal. A determination of what is "most stringent" would be highly subjective, making any estimate of revenue needs impossible.

What is needed is a more flexible approach to individual site cleanup. Superfund sites should be cleaned up to a level protective of health and the environment and should not become gold-plated public works projects.

We believe that potential taxpayers are entitled to at least that much consideration, particularly in light of doubts as to the equity of taxing current production to pay for correcting problems associated with past production and disposal over many decades by frequently unidentifiable persons.

This Committee should also be aware of other fiscal impacts of this legislation. The Federal Cause of Action contained in H.R. 5640 would allow claims to be made against the federal government for personal injury damages resulting from the release of a "hazardous substance." The United States Government is the largest generator of hazardous substances in the country, and would presumably become the single largest defendant in toxic tort litigation. The costs defy quantification—but for comparison purposes, litigation under the Swine Flu vaccination program involved damages in excess of $4 billion.

V. THE POST CLOSURE LIABILITY TRUST FUND MUST BE RETAINED

The Post Closure Liability Trust Fund was created by Congress in 1980 to ensure that funds would be available should any sites permitted under the Resource Conservation and Recovery Act require remedial action in the future. It is important to remember that this fund was established to deal with RCRA, and not CERCLA facilities.

Section 502 of H.R. 5640 would repeal the Post Closure Liability Trust Fund. NAM believes repeal would be a mistake, and would make the already difficult task of developing new waste management facilities even more so, because it would be impossible to assure that funds would be available in the future to clean up potential problems associated with existing or future RCRA sites.

The Post Closure Liability Trust Fund is capped at $200 million, a figure that resulted from best guesses and estimates. Perhaps that level is now inappropriate; we offer no proposal on the correct size of this fund. We do, however, strongly urge that it be retained as one more way of convincing understandably hesitant state and local officials that assistance will be available in the future should problems develop.

I thank you for this opportunity to express the views of the National Association of Manufacturers, and will be pleased to respond to any questions you may have.

APPENDIX

POSITION OF THE NATIONAL ASSOCIATION OF MANUFACTURERS ON H.R. 5640

The National Association of Manufacturers is concerned that a number of provisions in this legislation will detract from our nation's ability to expeditiously achieve the goals of the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), the cleanup of dangerous hazardous waste sites.

NAM urges that consideration of any CERCLA reauthorization be postponed until after the completion of a series of studies on needed improvements in Superfund. These studies, required by Section 301 (a) of CERCLA, are due by December of 1984, and the original funding authority does not expire until October 1985.

However, should consideration of H.R. 5640 proceed, you should be aware of problem areas in H.R. 5640, including:

Funding.—Title V of H.R. 5640 provides for a major increase in funds allocated to Superfund to $2 billion per year for 5 years. NAM is concerned that these funding levels will present an unacceptable burden to taxed industries, are beyond the ability of the Environmental Protection Agency to spend efficiently and will outstrip the ability of private industry to perform remedial actions.

Extent of remedy.—Section 107 of H.R. 5640 would require each inactive waste site to comply with the most stringent nationally-applicable standards for active facilities which have been developed under other environmental laws. These standards are to be met without regard to any determination of needed health and environmental protection at a particular site. This will result in overly expensive and extensive remedial efforts. NAM prefers a more flexible approach, such as that reflected in the settlement agreement reached between the EPA, the State of New Jersey, and the Environmetal Defense Fund.

Federal cause of action.—Title II of H.R. 5640 establishes a new federal cause of action for individuals alleging harm as a result of exposure to hazardous substances and applies strict, joint and several liability on a retroactive basis. The existence of massive problems with the operation of our current legal system has yet to be proven, and the use of strict, joint and several liability on a retroactive basis could result in inequitable apportionment of liability. NAM agrees with the Administration that consideration of options for compensation of individuals alleging harm as a result of exposure to hazardous substances is inappropriate with the context of Superfund.

Strict, joint and several liability in site cleanup.—Section 115 of H.R. 5640 states that "liability under this subsection shall be strict, joint and several as construed and applied under Section 311 of the Federal Water Pollution Control Act and under this subsection." Requiring the imposition of strict, joint and several liability to site cleanup activities will result in inequitable decisions in hundreds of instances, and will waste time, effort and resources in needless legal disputes.

Post-closure liability fund.—Secton 502 of H.R. 5640 would eliminate the post-closure liability fund without providing any alternative for protection from long-range problems from closed RCRA permitted facilities. NAM supports retention of the post-closure liability fund.

Leaking underground storage tanks.—H.R. 5640 creates a new regulatory program using Superfund monies to remedy problems created by leaking underground storage tanks. The NAM strongly believes such a program would prove a drain on the financial resources of the Superfund and would jeopardize the original intent of Superfund—the cleanup of hazardous waste sites. Efforts to solve this problem can be better placed elsewhere within EPA, and can be handled administratively.

Mr. GIBBONS. Mr. Holmer of the Chemical Manufacturers Association, chairman of the board of Exxon Chemicals.

STATEMENT OF EDWIN C. HOLMER, CHAIRMAN OF THE BOARD, CHEMICAL MANUFACTURERS ASSOCIATION, AND PRESIDENT, EXXON CHEMICAL CO.

Mr. HOLMER. Mr. Chairman, in several appearances before House and Senate committees since November 1983, CMA has supported Superfund reauthorization. The chemical industry wants the hazardous waste sites cleaned up expeditiously and effectively.

We are alarmed, however, that Congress is rushing to reauthorize the law, a full year before it is required, by imposing billions of dollars in additional taxes on our industry without, one, examination of the severe economic impacts and inequities which would result if H.R. 5640 became law; and, two, close examination of EPA's ability to spend the additional money effectively.

Currently, 87.5 percent of the SP response funding comes from an extremely narrow-based petrochemical feedstock tax designed to raise approximately $307 million per year.

CMA's members pay virtually all of the Superfund feedstock tax collections. Even within the chemical industry, the tax burden is distributed in a distorted fashion. Only 12 companies pay almost 70 percent of the Superfund taxes collected on petrochemicals.

Many other industries have disposed of the wastes in the Superfund sites.

Increasing the annual feedstock tax level will only worsen these inequities and produce an unacceptable economic impact on a narrow segment of industry, with spillover effects on the economy as a whole.

A lot has changed for our industry since Superfund was passed in 1980. For example, the petrochemical sector's 1983 sales were only 85 percent of the 1980 level on which the current feedstock tax was based.

This sector lost approximately $400 million in 1982, and was basely at the break-even level in 1983. In addition, chemical employment also has dropped by 50,000 in the past 2 years.

We are very concerned that our positive chemical trade balance has declined from $15 billion in 1980 to $10.6 billion in 1983. Moreover, the decline seems to be accelerating: The 1983 trade balance was $2 billion below 1982, a drop of 16 percent in 1 year.

These alarming trends are continuing in 1984. Based on data for the first 4 months of this year, we expect that the net chemical trade balance for 1984 will again decline by more than $1 billion.

For the petrochemical sector, this rapidly deteriorating trade balance, combined with razor-thin profit margins, the slow growth rate of a maturing industry, and worldwide overcapacity for petrochemicals are driving American chemical manufacturers toward permanently closing down petrochemical facilities and reducing employment.

In our judgment, increases in the feedstock taxes will severely worsen our position in all these respects.

In fact, a recent study by DeWitt & Co. estimates that the tax increases in H.R. 5640 could eliminate or jeopardize 30,000 industry jobs; lead to the shutting down of nearly 4 billion pounds of primary petrochemical capacity and jeopardize an additional 3.5 billion pounds of capacity; and restrict future plant investment.

We also have serious problems with the net weight waste end tax in H.R. 5640 and its severe economic effects within the chemical industry.

For example, the bill's waste end tax could raise one chemical company's tax payments to 82 percent of earnings. Moreover, if the bill's waste end tax is applied to waste treatment, then tax collections from the chemical industry could exceed total earnings of that industry. Any waste end tax should be on a dry weight basis.

The feedstock provisions of H.R. 5640 would increase annual feedstock tax revenues by fourfold, and the total industry tax would be increased by over fivefold.

Yet, we, the taxpayers, have been left totally uninformed as to the rationale supporting such needs. It appears that the numbers have been pulled out of the air.

In arriving at appropriate funding levels, we believe it is essential to keep two basic points in mind. One, funding should be approached on the basis of EPA's annual spending needs and abilities to spend effectively.

Two, at a great number of sites, part or all of the cleanup costs will come from private parties.

Projections of total funding needs to accomplish the full cleanup job can be based on only rough speculation at this time.

EPA has said that current appropriations will support EPA's spending needs through the end of fiscal year 1985. Yet, the only EPA estimates available to us which address SP needs beyond fiscal year 1985 project total Federal cleanup and program costs to run from $6 to $16 billion.

The December 1983 EPA study containing these estimates does not contain the crucial projections of the agency's annual expenditure needs.

However, one can perform a calculation with EPA's numbers to estimate that those annual funding needs would be approximately $850 per year, over a 14-year period.

I should point out that $850 million does not reflect the total annual expenditures that will be devoted to cleanup of sites on the national priorities list. EPA estimates that 40 percent of these sites will be cleaned up "up front" by companies without using Superfund dollars.

Thus, approximately $450 million would be spent directly by industry each year for NPL site cleanup. Adding this number to the $850 million figure yields a total of over $1.3 billion per year.

We are willing to endorse continuation of the feedstock tax, at current levels, for 5 more years, yielding approximately $307 million.

To reach another $307 million increment equivalent to the feedstock tax, we support a national tax on hazardous waste disposal on a by weight basis at the fixed and maximum rate of $50 per dry weight ton.

Our proposal would double the current annual taxing level for Superfund. We believe that the industry taxes outlined above will fully support EPA's spending needs when combined with the general Federal revenue share, interest on fund balances and cost recoveries from responsible parties.

We also recommend that EPA be given annual borrowing authority of up to $350 million to meet unanticipated cleanup requirements.

If it is determined by consultation with EPA that higher funding levels can be justified, this committee should look for revenue sources other than the chemical industry because we clearly cannot stand more taxation.

In conclusion, Mr. Chairman, H.R. 5640 is a very poor bill in many respects, and should be rejected as a vehicle for reauthorizing Superfund.

Thank you for the opportunity to testify.

Mr. GIBBONS. Thank you, Mr. Holmer.

[The prepared statement follows:]

STATEMENT OF EDWIN C. HOLMER, PRESIDENT OF EXXON CHEMICAL CO., ON BEHALF OF THE CHEMICAL MANUFACTURERS ASSOCIATION

SUMMARY

The Chemical Manufacturers Association's views on H.R. 5640, which has been referred to this Committee, may be summarized as follows:

- Congress should reauthorize Superfund by determining realistically what EPA's annual funding needs will be, and providing for such levels. Congress should derive these funds from a more broadly based mechanism than the tax structure of the current law.

- Based upon EPA's "Phase I" report of December, 1983, EPA will need approximately $850 million per year for a Superfund program that addresses sites at a rate of 128 per year. EPA has not attained this rate yet, and it may be difficult to do.

- Assuming $850 million per year is a reasonable estimate of EPA spending needs for the next five years, approximately $700 million per year will be needed in taxes. (This is about double the current (1981-1985) Superfund annual taxing.) EPA will derive the balance of its spending needs through interest on the fund investments and cost recovery from responsible parties.

- To derive this $700 million per year, CMA supports retaining the "feedstock tax" structure at the current rates to raise approximately $307 million per year for five years. To broaden the base of the tax (only 12 companies pay 70 percent of the "feedstock" taxes), CMA also supports a national waste disposal tax at $50 a dry weight ton to raise approximately $307 million per year. Finally, CMA supports collecting $86 million per year out of general federal revenues. This is the same ratio general revenues contribute to the current Superfund.

- Unfortunately, H.R. 5640 goes far beyond what is needed to reauthorize Superfund. The feedstock provisions of H.R. 5640 are designed to raise approximately $1.2 billion a year, and the new waste end provisions are designed to raise approximately $500 million annually. Annual industry taxes would be increased by a factor of almost six.

- We strongly oppose the Bill in its present form. The dramatic tax increases contained in the Bill will have severe adverse economic impacts on narrow segments of our industry, and the proposed size of the fund greatly exceeds the amounts which EPA can effectively spend each year on waste site cleanup.

- Since the Superfund feedstock tax was passed in 1980, there have been significant adverse changes for the petrochemical sector. The petrochemical sector's 1983 sales were only 85 percent of the 1980 level. This sector lost approximately $400 million in 1982 and was below the breakeven level in 1983. Chemical employment has also dropped by 50,000 in the past two years.

- Primary petrochemicals and their derivatives have contributed significantly to exports and about half of the very favorable chemical trade balance. However, the positive chemical trade balance has declined from $15 billion in 1980 to $10.6 billion in 1983, a decrease of $4.4 billion, or 29 percent. Moreover, the decline appears to be accelerating: the 1983 trade balance was $2 billion below 1982, a drop of 16 percent in one year. The serious problem of our industry's declining trade balance is being caused by both declining exports and increasing imports, and an increase in the Superfund feedstock tax will only worsen these problems.

- The Bill's proposed four-fold increase in feedstock taxes ignores the depressed state of the major primary petrochemical tax base, and the negative economic impact of dramatic increases in primary petrochemical tax rates. A consultant's study prepared for CMA concludes that prospects for improved future earnings can be diminished or eliminated by the Bill's taxes which can amount to $60 million/year for individual producers and equal 30 to 100 percent of prospective earnings in primary petrochemicals. This can shut down 3.9 billion pounds of primary petrochemical capacity and jeopardize continued operations of an additional 3.5 billion pounds of capacity. The study also indicates that the Bill's taxes could eliminate or jeopardize 30,000 jobs in the petrochemical industry and can cause 1 million jobs in downstream dependent industries to rely upon foreign petrochemicals. It also concludes that the U.S. petrochemical trade balance could be reduced by approximately $1 billion per year.

- There also are significant problems with the Bill's "waste-end" tax. Among other things, it would have severe economic effects within the chemical industry, primarily because it is imposed on an as-disposed "wet-weight" basis rather than a "dry-weight" basis. Under the most favorable interpretation, the Bill's waste-end tax could raise one company tax payments to as much as 82 percent of earnings. Moreover, if the Bill's waste-end tax is applied to the treatment of waste, then tax collections could exceed the total earnings of all the taxed industries -- an obviously unacceptable economic impact.

- We are encouraged by the Bill's inclusion of a waste-end taxing feature. Unfortunately, it its present form, this provision of the Bill is simply not workable. The Bill is poorly designed because it is based in a "wet-weight" approach with its resulting inequities. Even more fundamentally, the Bill could tax the treatment of hazardous wastes to render them non-hazardous or less hazardous -- an approach that is inconsistent both with a sound waste regulatory program and the underlying purpose of a tax on hazardous waste disposal.

- If the Bill is interpreted to impose a tax on various forms of treatment, the tax burden upon industry would be significantly greater than Congress intended to impose. The sponsors of the Bill designed a waste-end tax to raise $600 million annually. A tax imposed on waste which enters treatment systems could theoretically raise $2 to $6 billion annually. About half of this tax would fall on the chemical industry. To put this sum into perspective, the entire after tax profits of all chemicals and allied products companies in 1983 were $11 billion. Such a tax would clearly be punitive.

STATEMENT

The Chemical Manufacturers Association is a nonprofit trade association whose member companies represent more than 90 percent of the productive capacity for basic industrial chemicals in this country. In several appearances before Congressional committees since November of 1983, we have stressed both our strong support for an effective national program to clean up problem waste sites, and our commitment to play a cooperative and constructive role in the process leading to Superfund reauthorization. We are pleased to return to Congress today to present our views on a Superfund reauthorization proposal, H.R. 5640, which has been referred to this Committee.

In our previous statements, we have testified that Congress should reauthorize Superfund by (1) determining realistically what EPA's annual funding needs will be, and providing for such levels; (2) deriving these funds from a more broadly based mechanism than the tax structure of the current law; (3) providing this funding for a five-year period so the needs can be reexamined; and (4) re-enacting the current law unchanged in all other respects.

In previous testimony, we have provided detailed views on all major provisions of H.R. 5640. In light of this Committtee's jurisdiction, however, we will focus on the crucial funding and taxing issues.

To summarize, it is our position that annual EPA spending levels of approximately $850 million can be justified over the next five years for waste site cleanup under Superfund, and that a feedstock tax at current levels - supplemented by a national waste disposal tax on a dry weight basis to double tax revenue - will provide sufficient industry tax contributions to support EPA's realistic spending needs.

Unfortunately, H.R. 5640 goes far beyond what is needed to reauthorize Superfund, and we must oppose the bill. The dramatic tax increases contained in the bill will have severe adverse economic impacts on narrow segments of our industry, and the proposed size of the fund greatly exceeds the amounts which EPA can effectively spend each year on waste site cleanup.

Our most significant problems with the funding provisions of H.R. 5640 (hereafter, the "Bill") are as follows:

First, the Bill would continue reliance on the "feedstock" approach as the primary source of funding, and at the higher taxing levels proposed, greatly magnify the problems of that narrow-based approach;

Second, the amounts the Bill seeks to raise from industry taxes are exceedingly high, and appear to have no relationship to the amounts EPA would actually use even under an expanded and expedited cleanup program; and

Third, the wet weight "waste-end" tax provisions of the Bill are poorly designed and will create substantial inequities among taxpayers.

In Part I of this Statement, we will point out the serious adverse economic impact of taxing a narrow segment of the industry at unnecessarily high levels. In Part II, we will discuss the appropriate annual funding levels. In Part III, we will present our proposal for industry taxes to attain these annual levels. And in Part IV, we will describe the problems with and recommended improvements in the "waste-end" tax provisions of H.R. 5640.

I. Economic Impact on the Chemical Industry

Currently, 87½% of the Superfund response funding comes from special industry taxes designed to raise approximately $307 million per year. These taxes are imposed on organic and inorganic chemicals, crude oil and petroleum products. These are commonly referred to as the "feedstock" tax. The feedstock approach as now designed and operated is extremely narrow-based. And the more Congress contemplates adding to the current $307 million annual tax level through the feedstock tax, the more that funding mechanism would exacerbate an already inequitable distribution of the tax burden and create an unacceptable economic impact on this narrow segment of industry. Thus, we strongly object to the taxing provisions of the Bill which would impose a fourfold increase in feedstock tax revenues. It must be recognized that the ability of such a narrow-based mechanism to produce increased revenues would become severely strained.

To elaborate on how narrow-based this tax system is, CMA's members pay virtually all of the Superfund feedstock tax collections. And even within the chemical industry the tax burden is distributed in a distorted fashion. Only 12 companies pay almost 70 percent of the feedstock taxes collected on petrochemicals.

Yet even a cursory look at the types of industries which own or have contributed to waste sites now being cleaned up under

Superfund shows that it has been Industrial America -- not just a few petrochemical companies -- which has disposed of the wastes. At most sites, the share of the prime Superfund taxpayers' waste is quite small. At the multi-party sites EPA has addressed thus far, we continually see large shares of waste from companies in the electronics, auto, aircraft, steel, and other basic manufacturing industries.

The chemical industry has been committing massive financial resources to the nation's waste site cleanup program. With our tax and liability payments of the last four years, with the increased taxes we are willing to pay under our proposal in Part III of this Statement, and with the liability payments that are certain to continue into the future, we hope the Congress recognizes that our industry is paying dearly for the Superfund program. However, we must emphasize that trying to raise taxes at even higher annual rates from our industry will have significant adverse effects on our industry and have spillover effects on the economy as a whole.

A. Changes in Economic Condition for Chemical Industry Since 1980

Since the Superfund feedstock tax was passed in 1980, there have been significant changes in economic and competitive conditions for the chemical industry. In particular, the petrochemical sector which bears the burden of the feedstock tax has been especially hard hit during this period. For example: The petrochemical sector's 1983 sales were only 85% of the 1980 level on which the current feedstock tax was originally based. This sector lost approximately $400 million in 1982 and was below the breakeven level in 1983. Chemical employment has also dropped by 50,000 in the past two years.

The Committee also should be aware that primary petrochemicals and their derivatives have contributed significantly to exports and about half of the very favorable chemical trade balance. However, we are very concerned that the positive chemical trade balance has declined from $15 billion in 1980 to $10.6 billion in 1983, a decrease of $4.4 billion or 29%. Moreover, the decline appears to be accelerating: the 1983 trade balance was $2 billion below 1982, a drop of 16% in one year.

The serious problem of our industry's declining trade balance is being caused by both declining exports and increasing imports, and an increase in the Superfund feedstock tax will only worsen these problems. During the 1980-1983 period, exports declined from $24.4 billion to $22.7, a drop that contributed $1.7 billion of the $4.4 billion reduction in trade balance. Because of the ready transportability of chemicals, world markets for chemicals are highly competitive. Profit margins are razor-thin. The strengthening of the dollar during the '80-'83 period has certainly been one factor limiting exports. But we are also being hurt in world markets because the products we export must compete against those of foreign producers who do not have to pay the Superfund tax. The Superfund tax hits petrochemical raw materials the hardest, and these are the building blocks eventually needed to make most other chemical products.

Chemical imports also are increasing at a very steep rate. During the 1980-1983 period imports grew from $9.4 billion to

$12.1 billion, an increase of $2.7 billion or 29%. Here again we are being hurt by the Superfund tax when we must compete against imports from untaxed foreign producers. This is because imported downstream derivative chemical products which are made from non-taxed foreign raw materials do not have the feedstock tax built into their price structure.

During the 1980-1983 period, U.S. exports of chemicals to Europe dropped by $0.9 billion and imports from Europe increased by $1.2 billion. European producers don't pay a Superfund tax. Their exports into highly competitive world markets are booming. Last year European chemical exports expanded by 30%. European imports declined 20%, a good part of this hurting U.S. producers. The net result was that Europe's chemical trade balance in 1983 grew 115%, more than doubling, at the same time that the U.S. chemical trade balance dropped 16%.

These alarming trends in chemical exports and imports are continuing in 1984. Based on data for the first four months of this year, we expect that the decline in the net balance for 1984 will again exceed $1 billion. The continuing decline in chemical trade is robbing the chemical industry of the growth it would otherwise be enjoying, with all the attendant benefits to employment and local economies throughout the U.S. Moreover, competition from low-cost producers in the Middle East has not yet begun, but it will be felt in the second half of this decade.

Given this outlook, the sizeable decline in trade that has been occurring since 1980, and the razor-thin margins that exist, it should be clear that increasing the Superfund feedstock tax is the wrong thing to do if the U.S. chemical industry is to remain competitive in world markets.

B. Impact of Increased Feedstock Tax in H.R. 5640

The Bill's proposed fourfold increase in feedstock taxes ignores the depressed state of the major primary petrochemical tax base and the negative economic impact of dramatic increases in primary petrochemical tax rates.

The Bill's revenue projections assume that the 11 primary petrochemicals will yield $600 to $650 million/year by simultaneously increasing tax rates and projecting 20 percent sales increases. In our competitive environment, it is unrealistic to assume that this industry sector can simultaneously bear the increased cost of huge new taxes and expand sales volumes by 20 percent. Rather, the economic impact of increased taxes will reduce or eliminate potential earnings, reduce sales volumes in domestic markets, further jeopardize continued plant operations and associated jobs while losing export markets to untaxed foreign petrochemicals.

A current study prepared for CMA by DeWitt and Company quantifies the adverse economic impact that the Bill's taxes could have on the primary petrochemical industry. This assessment, combined with petrochemical manpower relationships developed by Arthur D. Little, leads to the following conclusions:

- The margin between raw material and primary petrochemical prices are inadequate to fully cover operating costs for a typical petrochemical plant today and certainly do not provide the incentive for new plant investment and job creation in the future.

- o Even prospects for improved future earnings can be diminished or eliminated by the Bill's taxes which can amount to $60 million/year for individual producers and equal 30 to 100 percent of prospective earnings in primary petrochemicals. This can shut down 3.9 billion pounds of primary petrochemical capacity and jeopardize continued operations of an additional 3.5 billion pounds of capacity.
- o The Bill's taxes could eliminate or jeopardize 30,000 jobs in the petrochemical industry and can cause 1 million jobs in downstream dependent industries to rely upon foreign petrochemicals.
- o The added taxes are not borne by our international competitors, and thus opens the door to both export and domestic markets for our competitors. The U.S. petrochemical trade balance could be reduced by approximately $1 billion per year.

Thus, the impact for Superfund of the Bill's increased feedstock taxes would be a shrinking feedstock tax base due to the erosion of the petrochemical sector.

C. Impact of the Waste Disposal Tax in H.R. 5640

As we point out in Part IV of this Statement, there also are significant problems with the Bill's "waste-end" tax. Among other things, it would have severe economic effects within the chemical industry, primarily because it is imposed on an as-disposed "wet weight" basis rather than a "dry weight" basis.

Under the most favorable interpretation, the Bill's waste-end tax could raise one chemical company's tax payments to as much as 82 percent of earnings. Moreover, if the Bill's waste-end tax is applied to the treatment of waste, then tax collections from the chemical industry could exceed the total earnings of our industry - an obviously unacceptable economic impact. In contrast, the $50/dry weight ton tax on waste disposal proposed in Part III(B) of this Statement would range from 0.1 to 4.0 percent of earnings.

II. Appropriate Annual Funding Levels

As we have discussed, the current industry feedstock tax structure, which accounts for 87½% of the total Superfund revenues, is designed to raise approximately $307 million a year. The feedstock provisions of the Bill are designed to raise approximately $1.2 billion a year, and the new waste end provisions are designed to raise approximately $500 million annually. Thus, under the Bill, the annual feedstock tax revenues would be increased by a factor of 4 and the total industry tax would be increased annually by a factor of 5. Yet we, the taxpayers, have been left totally uninformed as to any rationale supporting such needs. And we do not believe anything approaching the proposed levels can be justified.

The Energy and Commerce Committee has refused to consider amendments on funding issues. Yet determining the appropriate "size of the fund" and the mechanisms by which it will be derived are very critical issues in the Superfund reauthorization process. The determination of the appropriate size of the fund and the appropriate funding mechanism are essential to the proper exercise of this Committee's legislative jurisdiction and responsibility.

We will outline below the key factors which Congress should consider in deciding appropriate funding levels, and will describe a process for determining such levels. Our essential points are: (A) funding should be approached on the basis of EPA's annual spending needs; and (B) at a great number of sites, part or all of the cleanup costs will come from private parties through the liability scheme of the statute.

A. Need to Determine EPA's Annual Spending Needs

Any projections as to the total national funding needs for the future can be based only on the roughest speculation at this time. EPA's current estimates can only project between 1400 and 2200 as the number of sites that will eventually be placed on the National Priorities List. Thus, the most critical component to arriving at a total funding needs projection -- the number of sites to be addressed -- cannot even be narrowed within a reasonable variability factor.

Funding should accordingly be approached on the best estimates of EPA's annual spending needs for the next five years. Under this five-year approach -- which is the time-frame Congress originally chose in enacting Superfund -- Congress may re-examine the funding needs question in the future with more complete information.

An annual funding approach based upon annual spending needs makes sense. Each site requires a phased approach of careful study, planning, engineering, and construction. Thus, in any given annual period, EPA personnel -- even with additional resources -- can be expected to process a finite number of assessments, investigations, studies, design contracts, and construction contracts. And only as these projects are processed will the need arise to obligate and expend funds.

Moreover, such an approach is fair. Especially when funds are being raised from taxes on a narrow segment of the economy, it would be unjust to force tax payments from that segment substantially earlier than the funds are needed. We note that in cleaning up the federal government's own sites, Congress provides funding from the responsible agency's appropriations on an "as needed" basis. We believe fairness dictates that Congress view industrial funding on a similar basis.

We urge Congress to seriously consider the testimony on this point by EPA Administrator Ruckelshaus on March 15 before Congressman Florio's subcommittee. Administrator Ruckelshaus warned that "additional infusions" of funding beyond EPA's capabilities "could have the paradoxical effect of retarding our activities, not speeding them up." He outlined several limiting factors on EPA's ability to perform at a greatly expanded pace, including physical and administrative limitations within federal and state governments in performing remedial investigations and feasibility studies; the need for site assessments to be performed in varying seasons of the year; limitations within the analytical laboratory industry; and the need for informed citizen participation. He concluded by warning that such "additional infusions" of money at too great a rate had the potential for "building in waste."

B. Recognition that Liability Payments Will Offset Tax Needs

A second important principle to recognize is that a significant portion of the cleanup costs for Superfund sites will be paid for by responsible parties through the statute's liability scheme. These costs may be paid for "up front" -- by responsible parties either performing or paying for cleanup work directly -- in which case the moneys never go through the Superfund at all. Or these costs may be paid for in "cost recovery" -- by responsible parties reimbursing the fund for cleanup costs incurred. In either event, annual funding levels must be derived by accounting for these important factors. Each dollar that will be spent by or collected from responsible parties for Superfund site cleanups is a dollar that does not need to be raised through taxation.

Based on EPA's experience with "up front" settlements thus far and the numbers of solvent responsible parties associated with the sites on the National Priorities List (NPL), these liability contributions will indeed be substantial. Recent EPA figures show that even in the relatively early stages of the cleanup program that we are in, EPA has already reached "up front" enforcement agreements with private parties for full or partial cleanups for a total value of over $280 million dollars. In roughly the same time period, by comparison, EPA had obligated $241 million dollars for fund-financed site-specific cleanup work, a significant portion of which will be recoverable from responsible parties.

C. Use of EPA Estimates to Arrive at Annual Spending Needs

The only available EPA estimates we have seen which can be used to project Superfund needs are contained in the EPA document of December 8, 1983, entitled "Superfund Task Force Preliminary Assessment." This study estimates costs for the cleanup of all waste sites that may be placed upon the Superfund National Priorities List (NPL). In Chart #3, the study assumes ranges from 1000 to 2200 sites, and projects total federal cleanup and program costs in these ranges to run from $6 to $16 billion. This study recognizes the role of "up front" liability payments in the Superfund program by assuming that 40% of the NPL sites will be cleaned up by responsible parties. These costs are accordingly not included in the $6 to $16 billion projections.

This study does not, however, contain the crucial missing number that Congress must explore with EPA: projections of annual expenditure needs. Yet one can perform this calculation with EPA's numbers to estimate these annual funding needs. On page 13, the study assumed that EPA might take 14 years to complete an NPL of 1800 sites. At this rate, about 128 sites per year would be completed. This projected rate is much faster than the rate EPA is now proceeding under.

For the 1800-site range, the EPA study projects total Superfund needs to be approximately $12 billion. Even assuming the rate of 128 sites per year could be attained -- an assumption which warrants careful scrutiny -- one can divide the 14 years into 12 billion dollars to arrive at an annual expenditure level. This number is approximately $850 million per year.

Even though the foregoing analysis lacks scientific precision, it is the only exercise we have seen in which there has been an attempt to use EPA estimates to arrive at an annual spending needs figure. We urge Congress to pursue this analysis in more detail with EPA because it is such a key factor in determining appropriate funding levels.

III. Mechanisms to Raise Funding

Assuming EPA needs approximately $850 million per year to run an efficient waste site cleanup program, the next question obviously becomes: how do we derive these funds? We offer below our proposal to raise $700 million by continuing the 87½% - 12½% industry tax/general revenue share contained in the current law. The remaining $150 million will come from cost recoveries and interest on fund investments.

A. Feedstock Taxes

We discussed the current feedstock tax and the severe economic impacts of increased feedstock taxes in Part I of this Statement. We recognize, however, that it is important to provide a stable base of funding for the CERCLA program for the next five years. We are thus willing to endorse continuation of the feedstock tax, at current levels, for five more years. This would raise approximately $307 million per year. We have some suggestions for technical corrections to the statutory language which we have attached to this Statement for the Committee's consideration.

B. "Waste-End" Tax

To support EPA's anticipated annual spending levels more than $307 million from the feedstock tax will be needed. To reach another increment equivalent to the feedstock tax, we support a national tax on hazardous waste disposal at the fixed rate of $50 per dry weight ton. Such a tax would, among other things:

- produce revenues of the magnitude the current feedstock tax is designed to produce;
- produce broader distribution of tax liabilities among industrial categories and a more logical relationship to hazardous waste disposal activities; and
- provide incentives where appropriate to:
  1) reduce the amount of waste generated, and
  2) utilize technologies to recycle, reuse, neutralize, treat, incinerate or otherwise destroy hazardous waste.

It is important to stress that we strongly oppose a waste-end tax at any rate higher than our $50 per dry weight ton proposal. Our proposed combination of feedstock and waste-end taxes still keeps the lion's share of funding for the waste site cleanup program within the chemical industry. Because so many other industries have contributed to waste disposal in the past, we believe this proposed combination is as much as our industry can fairly be expected to contribute on an annual basis.

C. Balance from General Revenues, Interest, and Cost Recoveries

We believe that the two types of industry taxes outlined above at the levels we indicated -- approximately $307 million per year from feedstock and $307 million per year from the dry weight waste disposal tax -- will fully support EPA's projected spending needs. This is because continuation of the general federal revenue share, interest on unexpended fund balances, and cost recoveries secured by EPA from responsible parties after it has spent fund moeys for cleanups should easily provide the balance. In fact, recent EPA projections indicate that it expects to receive a 30% return factor through such cost recoveries. Even if only $700 million per year is spent from the fund for clean-ups, there would be over $200 million in cost recoveries per year at the 30% rate. Thus, our estimates are quite possibly conservative as to this factor.

The following table summarizes our proposed funding scheme to match annual EPA spending needs of approximately $850 million:

(All figures are stated in millions per year)

$307	feedstock taxes
+ 307	waste disposal tax
+ 86	general federal revenues
$700	total tax funding (like current CERCLA, 87½% industry tax and 12½% general revenue)
+ $150	cost recoveries and interest
$850	annual EPA spending

It should be noted this number does not reflect the total expenditures that will be devoted to cleanup of NPL sites. EPA estimates that 40% of these sites will be cleaned up "up front" by responsible parties through the Act's liability provision. EPA will not have to spend Superfund dollars for these sites. Thus, approximately $460 million will be spent by industry each year for NPL site cleanup in addition to what industry pays in the Superfund taxes. Adding this number to the $850 million figure, we see that over $1.3 billion per year will be devoted to cleanups under our proposal.

In addition, since it is likely that peaks and valleys will occur in the EPA's spending requirements for site cleanup, we also recommend that the Agency be given the authority to borrow up to $350 million annually to cover spending peaks. Any amounts borrowed could be amortized over a 10-year period and then repaid from Superfund cost recoveries from responsible parties. Thus, with this added borrowing authority we do not believe there will be any emergency funding needed for site cleanup activities over the next 5 years that require higher levels of taxation.

IV. Problems with H.R. 5640's Approach to Waste Disposal Tax; Prescription for an Improved Approach

We are encouraged by the Bill's inclusion of a waste-end taxing feature. (Section 503). Unfortunately, in its present form, this provision of the Bill is simply not workable. The Bill is poorly designed because it is based on a "wet weight" approach with its resulting inequities. Even more fundamentally, the Bill could tax the treatment of hazardous wastes to render them non-hazardous or less hazardous -- an approach that is inconsistent both with a sound waste regulatory program and the underlying purpose of a tax on hazardous waste disposal.

We believe there are several basic requirements for a workable and effective waste-end revenue system. First, there must be a clearly defined taxable substance. Second, there must be a definite taxable event. Third, there must be an identifiable class of taxpayers. Fourth, there must be a verifiable record of transactions and events to provide the audit trail for enforcement and collection. The effectiveness of a revenue system will be increased if that system is related to existing rules and guidelines.

The Bill does not meet the first requirement, for it would impose fees on the disposal of "hazardous substances." In this context, the term "hazardous substances" is far too inclusive and ambiguous for use in a tax system. In addition, the Bill does not contain a definite taxable event for assessing liability for taxes. By seeking to assess all disposal of an ambiguous assessable substance, the Bill could make literally hundreds of thousands of events and countless taxpayers down to household users subject to potential liability for disposal taxes. The tax system thus established would be extremely difficult to administer from its inception.

Moreover, even though incineration is specifically exempted from the tax, other forms of treatment -- including common waste water treatment practices -- may be construed to be subject to the tax. If this were the case, one of the main purposes of the waste-end tax system would be defeated, for the incentives for alternate forms of treatment could be greatly reduced.

If the Bill is interpreted to impose a tax on various forms of treatment, the tax burden upon industry would be significantly greater than Congress intended to impose. The sponsors of the Bill designed a waste end tax to raise $600 million annually. A tax imposed on waste which enters treatment systems could theoretically raise $2 to $6 billion annually. About half of this tax would fall on the chemical industry. To put this sum into perspective, the entire after tax profits of all chemicals and allied products companies in 1983 was $11 billion. Such a tax would clearly be punitive.

Another serious shortcoming in the Bill is that it would assess taxes on waste on a wet weight basis rather than on a dry weight basis. We believe that imposing a tax on this "wet" basis will create serious inequities and will distort sound waste management practices. If the tax is assessed as a single rate per dry weight ton of hazardous waste, the tax would be assessed on the actual content of hazardous material disposed or deposited for long-term storage. In this respect, dry weight would be actual weight of the material less free water.

Determining dry weight is a common, routine analytical procedure. Dry weight is the weight of a substance after removing the weight of water. One method for doing this is published by EPA in 40 CFR Part 136. Moreover, the post-closure liability tax which is now in place under CERCLA is imposed on a dry weight basis. 28 U.S.C. 4681(b). The experience developed by the Internal Revenue Service in collecting the post-closure tax would apply here.

If the taxes are not assessed on a dry weight basis, there will be serious distortions of waste management practices. For example, the tax system under the Bill would greatly favor landfill of hazardous waste over other methods of waste disposal. Thus landfilling, the method of waste disposal which has been directly related to the Superfund site problem, would pay significantly lower taxes than would other more environmentally acceptable disposal methods.

Our preliminary analysis of the Bill, for example, indicates that landfills would provide less than 10 percent of the total revenues generated from the wet weight disposal tax. On the other hand, if the disposal tax were assessed on a dry weight basis, landfills would provide in excess of 40 percent of the total revenues generated. Thus, assessing the tax on dry weight would treat all methods of disposal in a neutral manner and would preserve the strong environmental incentive that is created by a tax on waste disposal.

Moreover, use of a wet-weight basis would not equitably spread the base of taxing among other industries in relation to their contribution to hazardous waste disposal. Our calculations show that under a wet-weight tax, CMA members would pay a disproportionate 85% of the total, while under a dry weight based tax, our members would pay about 50%. The latter percentage is approximately the percentage of hazardous waste disposed of by the chemical industry.

The operator of the disposal or storage site should be designated as the taxpayer. The operator is the person who performs the taxable event and is currently obligated to maintain disposal and storage records. These records which apply to owners and operators of both on-site and off-site facilities are described in EPA's RCRA regulations. The most important of these records is the operating log which contains a description and quantity of each hazardous waste received and the method and date of its treatment, storage or disposal at the facility, and the location of each hazardous waste within the disposal facility.

By designating the disposal facility operator as taxpayer, the number of taxpayers is limited to fewer than four thousand site operators rather than the tens of thousands of generators.

The disposal site operator has an established billing system through which the tax can be directly billed to the specific generator responsible for creating the hazardous waste. This simplifies the tax mechanism and provides a direct incentive to the generator to reduce or eliminate waste disposal.

Some have expressed concern that state experience indicates that a tax on hazardous waste disposal would provide an unreliable source of tax revenue. We do not believe this is the case, and there are several responses to this concern.

First, in several instances the state tax statute was poorly drafted and thus failed to cover all the practices it should have. A national tax on waste disposal could be drafted in more precise language to assure production of appropriate revenues.

Second, the quality of the projection methods some states have used to predict revenues has varied substantially, and some states seem to have greatly overestimated their receipts without good reason. For example, in California, actual tax collections in the first year after enactment reached 93 percent of estimated collections. In contrast, in New Hampshire actual collections reached only 10 percent of the estimated total.

Third, the effectiveness of any state waste disposal revenue systems would undoubtedly improve when the system is administered and collected by experienced tax officials. The state experience reflects reliance on several different administrative systems to collect these revenues, not all of which are equally effective. With a national tax on waste disposal in place, we can be sure that the IRS will collect taxes vigorously. Moreover, the chemical industry will cooperate positively, as we have with the existing Superfund taxes, to make sure that the system will continue to work.

Fourth, when assessing the viability of waste-end taxes enacted in some states but not others, it should be recognized that the enactment of tax in a single jurisdiction may encourage potential taxpayers to avoid conduct that could be subject to tax in that jurisdiction. For example, those who formerly shipped waste for disposal to a state that has imposed a tax on waste disposal may consider alternative disposal options in other states. Those alternatives simply would not be available if a nationwide tax on hazardous waste disposal is adopted and enforced by the Federal Government.

Fifth, a recent analysis of the New York Superfund tax system by the New York State Superfund Management Board confirms that the shortfall in revenues experienced in New York is attributable to one or more of these reasons. See "Fiscal Aspects of the State Superfund Program" (January 1, 1984).

Finally, state experience has compared favorably to that of the Federal Government using the "feedstock" tax during the same period. According to EPA briefing materials recently made publicly available, the average revenue produced under state waste end systems was 60 percent of previously estimated revenue collections. During the same period, Superfund collections produced approximately 80 percent of the estimated collections. Given that the data were obtained under several statutes that ranged in effectiveness from 10 to 93 percent and during a major recession, the state performance under waste end revenue systems came very close to the performance of the Federal tax which employed all the collection resources of the Internal Revenue Service. Under these circumstances CMA believes that a Federal waste-end tax system can eliminate most of the difficulties of taxes on waste disposal that have been perceived at the state level.

"SEC. 4681. IMPOSITION OF TAX.

"(a) General Rule.—There is hereby imposed a tax on the
of hazardous waste at a qualified hazardous waste disposal

"(b) Amount of Tax.—The amount of the tax imposed by
tion (a) shall be equal to $2.13 per dry weight ton of hazardou

"SEC. 4682. DEFINITIONS AND SPECIAL RULES.

"(a) Definitions.—For purposes of this subchapter—

"(1) Hazardous waste.—The term 'hazardous waste'
any waste—

"(A) having the characteristics identified under
3001 of the Solid Waste Disposal Act, as in effect on
of the enactment of this Act (other than waste the re
of which under such Act has been suspended by
Congress on that date), or

"(B) subject to the reporting or recordkeeping
ments of sections 3002 and 3004 of such Act, as so i

"(2) Qualified hazardous waste disposal facilit
term 'qualified hazardous waste disposal facility' me
facility which has received a permit or is accorded interi
under section 3005 of the Solid Waste Disposal Act.

"(b) Tax Imposed on Owner or Operator.—The tax im
section 4681 shall be imposed on the owner or operato
qualified hazardous waste disposal facility.

"(c) Tax Not To Apply to Certain Wastes.—The tax im
section 4681 shall not apply to any hazardous waste which
remain at the qualified hazardous waste disposal facility
facility is closed.

"(d) Applicability of Section.—The tax imposed by sect
shall apply to the receipt of hazardous waste after Septe
1983, except that if, as of September 30 of any subsequent
year, the unobligated balance of the Post-closure Liability Tr
exceeds $200,000,000, no tax shall be imposed under suc
during the following calendar year.".

(b) Conforming Amendment.—The table of subchapters
ter 38 is amended by adding at the end thereof the follow
item:

"Subchapter C—Tax on Hazardous Wastes.".

SEC. 232. POST-CLOSURE LIABILITY TRUST FUND.

(a) Creation of Trust Fund.—There is established in the
of the United States a trust fund to be known as the "Po
Liability Trust Fund", consisting of such amounts as may
priated, credited, or transferred to such Trust Fund.

(b) Expenditures From Post-closure Liability Trust
Amounts in the Post-closure Liability Trust Fund shall be
only for the purposes described in sections 107(k) and 111(j)
(as in effect on the date of the enactment of this Act).

(c) Administrative Provisions.—The provisions of se
and 223 of this Act shall apply with respect to the Tr
established under this section, except that the amount of

TABLE I—LIST OF APPROVED TEST PROCEDURES [1]—Continued

Parameter and units	Method	1974 EPA methods	14th ed standard methods	References (page nos.)		Other approved methods
				Pt. 31 1975 ASTM	USGS methods	
87. Zinc—Dissolved, milligrams per liter.	0.45 micron filtration [17] followed by referenced method for total zinc					
88. Nitrate (as N), milligrams per liter.	Cadmium reduction, brucine sulfate, automated cadmium or hydrazine reduction [21].	201 197 207	423 427 620	366	119	[8](614) [20](28)
89. Nitrite (as N), milligrams per liter	Manual or automated colorimetric (Diazotization).	215	434		121	
90. Oil and grease, milligrams per liter.	Liquid-liquid extraction with trichloro-trifluoro-ethane-gravimetric	229	515			
91. Organic carbon, total (TOC), milligrams per liter	Combustion—infrared method [22]	236	532	467	[20](4)	
92. Organic nitrogen (as N), milligrams per liter	Kjeldahl nitrogen minus ammonia nitrogen.	175, 159	437		122	[8](612, 614)
93. Orthophosphate (as P), milligrams per liter.	Manual or automated ascorbic acid reduction.	249 256	481 624	384	131	[8](621)
94. Pentachlorophenol, milligrams per liter.	Gas chromatography [23]					
95. Pesticides, milligrams per liter	do [27]		555	829	[20](24)	
96. Phenols, milligrams per liter	Distillation followed by Colorimetric. (4AAP).	241	574	545		
97. Phosphorus (elemental), milligrams per liter.	Gas chromatography [28]					
98. Phosphorus, total (as P), milligrams per liter.	Persulfate digestion followed by manual or automated ascorbic acid reduction.	249 256	476, 481 624	384	133	[8](621)
RADIOLOGICAL						
99. Alpha—Total, pCi per liter	Proportional or scintillation counter.		648	591	[31] [30](75 + 78)	
100. Alpha—Counting error, pCi per liter	do		648	594	[31](79)	
101. Beta—Total, pCi per liter	Proportional counter		648	601	[31] [30](75 + 78)	
102. Beta—Counting error, pCi per liter.	do		648	606	[31](79)	
103. (a) Radium—Total, pCi per liter.	do		661	661		
(b) ^{226}Ra, pCi per liter	Scintillation counter		667		[31](81)	
RESIDUE						
104. Total, milligrams per liter	Gravimetric, 103 to 105° C	270	91			
105. Total dissolved (filterable), milligrams per liter.	Glass fiber filtration, 180° C	266	92			
106. Total suspended residue	Glass fiber filtration, 103 to 105° C., post-washing of residue.	268	94			[29](537)
107. Settleable, milliliters per liter or milligrams per liter.	Volumetric or gravimetric		95			
108. Total volatile, milligrams per liter.	Gravimetric, 550° C	272	95			
109. Specific conductance, micromhos per centimeter at 25° C.	Wheatstone bridge conductimetry	275	71	120	148	[8](606)
110. Sulfate (as SO), milligrams per liter.	Gravimetric; turbidimetric; or automated colorimetric (barium chloranilate).	277 279	493 496	424 425		[8](624) [8](623)
111. Sulfide (as S), milligrams per liter.	Titrimetric—iodine for levels greater than 1 mg per liter; Methylene blue photometric.	294	505 503		154	
112. Sulfite (as SO$_3$), milligrams per liter.	Titrimetric, iodine-iodate	285	508	435		
113. Surfactants, milligrams per liter.	Colorimetric (Methylene blue)	157	600	494	[20](11)	
114. Temperature, degrees C	Calibrated glass or electrometric thermometer.	286	125		[20](31)	

224 RESIDUE

Tests for the various forms of residue do not determine specific chemical substances, but rather classes of material which have similar physical properties and similar responses to ignition. The tests are therefore basically empirical in nature and the constituents of each form of residue are defined largely by the procedures employed. For this reason, the realization of reproducible or comparable results requires close attention to the constancy of such procedural details as drying time, ignition time, temperatures, and filter characteristics.

In some cases, analyses performed for a special purpose may demand deviation from the stated procedures in order to include with the measured residue some unusual ingredient of the sample. Whenever such variations of technic are introduced, they must be recorded and presented with the results.

The results for total, volatile and fixed residues are subject to considerable error through losses of volatile compounds during evaporation and of carbon dioxide and volatile minerals during ignition, and also because of the presence of calcium oxide in the ash. Results for residues high in oil or grease content may be of questionable value owing to the difficulty of drying to constant weight in a reasonable time. By definition, results will not include materials in the sample which are volatile under the conditions of the procedure.

In the interpretation of results, these possible sources of error must be recognized.

Methods A through F are intended for use with wastewaters, effluents and polluted waters. Use Method G for sludges, muds, and other solid or semisolid samples.

224 A. Total Residue on Evaporation

1. General Discussion

The determination of residue by evaporation may be of limited value for estimating the effect of an effluent on a receiving water, but it may be useful as a control in plant operation. A large number of solids crystallize as hydrates, which lose water at various temperatures and form decomposition products before all their water of hydration is given off. This also is true of various colloidal suspensions. In addition, volatile compounds are lost during evaporation and ignition. It is essential for the analyst to understand that the procedure given for residue on evaporation is quite arbitrary and the results generally will not represent the weight of actual dissolved and suspended solids. Because of the organic content of sewage, samples should be dried at 103 C. A more complete discussion of the temperature for drying residues may be found in Section 148, Residue.

2. Apparatus

a. Evaporating dish.

b. Steam bath or infrared lamp.

c. Drying oven.
d. Desiccator.
e. Analytical balance.

3. Reagent

a. Sodium hydroxide, 1N.

4. Procedure

Evaporate 100 ml of sample in an ignited and tared dish, dry to constant weight at 103 C, cool in a desiccator, and weigh. Drying for 1 hr at 103 C is usually sufficient. On samples with a pH below 4.3, NaOH is added and a pH of 4.3 maintained during evaporation. The weight of Na added is subtracted from the weight of residue.

5. Calculation

$$\text{mg/l residue on evaporation} = \frac{\text{mg residue} \times 1{,}000}{\text{ml sample}}$$

6. Precision and Accuracy

The accuracy of all the solids determinations in sewage and industrial wastes is not measurable because there is no universal standard of comparison. When the residue from a 50–100 ml sample of raw sewage was weighed, the standard deviation of the weighing was found to be 1.9 mg ($n = 3$; 60×10), but the data are considered statistically unreliable because of sampling errors. On settled effluents, a standard deviation of 0.9 mg ($n = 1$; 5×20) was found and is statistically reliable.

224 B. Total Volatile and Fixed Residue

1. Apparatus

a. Muffle furnace.

2. Procedure

Determine total volatile and fixed solids by igniting the residue on evaporation (Method A) at 550 C in an electric muffle furnace to constant weight. (It has been found that wastewater and effluent residues usually attain constant weight in 15 to 20 min ignition.) Report the loss of weight on ignition as mg/l volatile solids and the residue as mg/l fixed solids. Calculate as in Method A, ¶ 5.

3. Precision and Accuracy

Using this procedure, the standard deviation of the weighing was found to be 1.5 mg ($n = 2$; 50×10), but these data are considered statistically unreliable because of sampling errors.

Summary of Major Provisions of Superfund Reauthorization Bill

Title I

- o Extension of CERCLA taxes on certain chemicals and petroleum for 5 years.

Principal Amendments:	Annual Revenue
o Freeze and cap revenues to be raised from this tax at current level or $1.5 billion over 5 years ($300 million per year)	$300 million
o Specifically exempt hydrocarbons used in gasoline from separate taxation as chemicals.	
o Technical Amendments: (a) chemicals would not be taxed until intentionally removed from mixed stream and raised to commercial purity levels; (b) arrangements to exchange or to lend chemicals among manufacturers would not be subject to tax.	
o Expand borrowing authority of EPA to provide up to $300 million per year of "safety valve" borrowing.	$300 million
o General government revenue contributions.	$ 88 million

Title II

o Tax on Disposal or long-term storage of RCRA hazardous waste.	$330 million

Taxable Substance: RCRA defined "hazardous waste"

Tax Rate: $50 per dry weight ton or equivalent

Taxable Event: Deposit of hazardous waste for disposal or long-term storage (over 1 year) at certified RCRA facilities.

Taxpayers: Owners and operators of certified RCRA hazardous waste disposal or long-term storage facilities (fewer than 4900 identified taxpayers who are currently liable for the post-closure liability tax).

Exemptions: Disposal of high volume, low toxicity wastes (e.g., mine tailings, drilling muds and fly ash).

Clean-up of hazardous waste sites that have been identified under CERCLA.

Additional Revenues Available for Superfund Site Clean-up

o Cost recoveries from responsible parties and interest on unexpended CERCLA trust funds.	$150 million
Total Available Annual Revenues	$1.168 billion

A BILL

To amend the Comprehensive Environmental Response, Compensation and Liability Act of 1980, to amend the Internal Revenue Code of 1954, to extend the taxes on petroleum and certain chemicals for five additional years, to add technical amendments, to impose a tax on the disposal or long-term storage of hazardous wastes, to expand the authority to appropriate repayable advances to the Response Trust Fund, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

Sec. 1. This Act may be cited as the "Comprehensive Environmental Response, Compensation and Liability Amendment Act of 1984."

TITLE I

TECHNICAL AMENDMENTS AND FIVE YEAR EXTENSION OF TAXES ON PETROLEUM AND CERTAIN CHEMICALS

EXPANSION OF AUTHORITY TO APPROPRIATE REPAYABLE ADVANCES

Sec. 101. Subsection 4611(d) of the Internal Revenue Code of 1954 is amended by striking that subsection and inserting in lieu thereof the following:

"(d) Termination - The taxes imposed by this section shall not apply after September 30, 1990 except that if on September 30, 1988 or September 30, 1989

"(1) the unobligated balance in the Hazardous Substance Response Trust Fund as of such date exceeds $1.8 billion, and

"(2) the Secretary, after consultation with the Administrator of the Environmental Protection Agency, determines that such unobligated balance will exceed $1 billion on September 30 of the following year if no tax is imposed under section 4611 or 4661 during the calendar year following the date referred to above,

then no tax shall be imposed by this section during the first calendar year beginning after the date referred to in paragraph (1)."

Sec. 102. (a) Section 4612(a)(1) of the Internal Revenue Code of 1954 is amended by adding the following at the end thereof:

"The term 'crude oil' does not include butane, ethane or propane recovered from a natural gas stream."

(b) Section 4612(a)(3) of the Internal Revenue Code of 1954 is amended by striking the period at the end thereof substituting a comma therefor and adding:

"crude oil condensate, natural and refined gasoline, refined and residual oil, and any other hydrocarbon product derived from crude oil or natural gasoline which enters the United States in liquid form. The term 'petroleum products' excludes butane, ethane, propane, or any petrochemical listed in Section 4661(b)."

(c) Section 4612(a)(5) of such code is amended by adding the following at the end thereof:

"Refining is an operation by which the physical or chemical characteristics of crude oil or crude oil products are changed, exclusive of such operations as the passing of crude oil through separators to remove gas, placing crude oil in settling tanks to remove basic sediment and water and dehydrating crude oil. Refining does not include the recovering of natural gasoline or natural gas liquids from natural gas at a gas separation facility at which the characteristics of such recovered natural gasoline or natural gas liquids are not changed.

"For these purposes, a gas processing plant is not considered as being a refinery unless crude oil is refined at such facility."

(d) Section 4612(a) of such Code is amended by adding the following paragraphs at the end thereof:

"(10) ENTERED INTO UNITED STATES. When crude oil is imported into the United States and moved to the United States refinery of a person who assumes the tax liability on the imported crude oil and issues an assumption certificate under rules and regulations prescribed by the Secretary then such crude oil shall be considered to be entered into the United States when received at such refinery.

"(11) USE. Use includes consumption or operations by which the characteristics of crude oil are changed prior to such crude oil being received at a United States refinery. Use of crude oil does not include (A) passing crude oil through separators to remove gas, (B) placing crude oil in settling tanks to remove basic sediment and water, (C) dehydrating, (D) cleaning, (E) purifying, (F) storing, or (G) exchanges.

"(12) RECEIVED AT UNITED STATES REFINERY. For purposes of Section 4611(a)(1), crude oil shall be considered to be received at a United States refinery on the basis of daily refinery intakes to crude oil processing units.

"(13) EXCHANGES. For the purpose of this subchapter, an 'exchange' means a transaction in which two or more persons reciprocally give up and receive crude oil, refined product, residual fuel oil, natural gas liquids, or primary petrochemicals. The term includes exchanges in which one person may make a payment in cash or other property to compensate the other for differences in the values of the volumes involved or to compensate the other for costs incurred pursuant to the transaction."

Sec. 103. (a) Section 4662(a)(1) of the Internal Revenue Code of 1954 is amended by adding the following paragraphs at the end thereof:

"(C) Any organic chemical listed in Section 4661(b) including an isomer of any such chemical, shall be considered a taxable chemical only if it is removed for use or sale from the process in which it was manufactured, and meets the purity standards set out below:

"(1) Aromatics, 95% or higher.

"(2) Olefin and unsaturated streams, 90% or higher weight purity on a anhydrous basis.

"(D) If a mixed hydrocarbon stream containing an organic chemical listed in Section 4661(b) which is of a purity level below that prescribed in subsection (c), is used to produce a nontaxable chemical, then such listed chemical shall be taxed on a contained weight basis.

"(E) Dilute streams of inorganic chemicals shall be taxed on the basis of taxable chemical content.

"(F) When the quantity of a taxable chemical used is not a measured quantity the taxpayer may calculate a reasonable quantity approximation of the taxable chemical using any of the following methods:

"(1) Quarterly samples using regular process sampling techniques utilized for inventory and other purposes.

"(2) Consumption formula established for derivative product. Such consumption rate may be established on a theoretical, actual or average consumption basis."

(b) Section 4662(a) of such Code is amended by adding the following paragraphs at the end thereof:

"(6) EXCHANGE. For the purpose of this subchapter, an 'exchange' means a transaction in which two or more persons reciprocally give up and receive taxable or nontaxable chemicals. The term includes exchanges in which one person may make a payment in cash or other property to compensate the other for the differences in the values of the volumes involved or to compensate the other for costs incurred (e.g., freight costs) pursuant to the transaction.

"(7) SALE. For the purposes of this subchapter, a 'sale' shall not include exchanges, intracompany transfers or processing or tolling arrangements whereby one person furnishes a chemical to another person for processing but retains title to such chemical and to the finished products made from it.

"(8) USE. For the purpose of Subsection (c) 'use' includes the chemical alteration of a taxable chemical in making its first derivative chemical. The term 'use' does not include product exchanges, storage, warehousing and nonprocess losses.

"Chemicals which are recycled without being consumed or chemically altered are deemed not used for purposes of this subchapter. Chemical usage is to be measured on the basis of chemicals added to the recycle process."

(c) Section 4662(b)(2)(C) of such Code is amended by striking "For purposes of this subsection, the term 'qualified use' means any use in the manufacture or production of a fertilizer," and substituting, "For purposes of this subsection, the term 'qualified use' means any use as a fertilizer or in the manufacture or production of a fertilizer."

(d) Section 4662(b) of such Code is amended by adding the following paragraphs at the end thereof:

"(5) TOLLING ARRANGEMENT. The use of a taxable chemical in a tolling process arrangement with another person shall be attributed to the owner who furnishes the taxable chemicals when such arrangement provides that such owner shall retain title to the end products of such process.

"(6) EXCHANGE AGREEMENTS. A person receiving a taxable chemical under an exchange agreement shall be considered the manufacturer or producer thereof.

"(7) ASSUMPTION OF TAX BY MANUFACTURER. A manufacturer of chemicals may assume the tax liability on taxable chemicals purchased by him by issuing to his supplier an assumption certificate under rules and regulations prescribed by the Secretary."

(e) Section 4662(c) of the Internal Revenue Code of 1954 is amended by adding at the end thereof:

"If any person purchases a chemical listed in the table under Section 4661(b) for a use described in Subsection 4662(b)(5) and uses or sells such chemical for a purpose other than a use described in Subsection 4662(b)(5), such person shall be treated as the manufacturer of such chemical and shall be liable for the tax thereon."

(f) Section 4662(d)(1) of such Code is amended by adding the following paragraph at the end thereof:

"(C) For purposes of this section, when a taxable chemical which has been previously sold or used, is used in the manufacture of another taxable chemical, then the tax on the previous sale or use shall be deemed to have been paid. In those cases where a processed taxable chemical produces more than one taxable product, the credit shall be allocated among such products."

Sec. 104. (a) Sec. 221(b)(1)(A) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is amended by striking "Section 4611 or 4661" and substituting in lieu thereof, "Sections 4611, 4661 and 4691."

(b) Sec. 221(b)(2) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is amended by striking that subsection and substituting the following in lieu thereof:

"(2) AUTHORIZATION FOR APPROPRIATIONS. There is authorized to be appropriated to the Emergency Response Trust Fund for fiscal year -

(A) 1986, $88,000,000

(B) 1987, $88,000,000

(C) 1988, $88,000,000

(D) 1989, $88,000,000 and

(E) 1990, $88,000,000, plus an amount equal to so much of the aggregate amount authorized to be appropriated under subparagraphs (A), (B), (C), and (D) as has not been appropriated before October 1, 1989."

(c) Sec. 221(c)(2)(B) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is amended by striking that subsection and substituting the following in lieu thereof:

"(B) for the repayment of advances made under Sec. 223(c)."

(d) Sec. 223(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is amended by striking that subsection and substituting the following in lieu thereof:

"(c) Authority to Borrow.

"(1) In General. There are authorized to be appropriated to the Response Trust Fund, as repayable advances, such sums as may be necssary for the payment of governmental response costs incurred pursuant to Section 104 of this Act.

"(2) Limitations on Advances to Response Trust Fund.

"(A) Aggregate Advances. The maximum appregate amount of repayable advances to the Response Trust Fund in any fiscal year shall not exceed the lesser of (i) $300,000,000, (ii) the total recoveries pursuant to Section 107 of this Act, from owners, operators and other responsible persons in the preceding fiscal year of punitive damages and removal and remedial action costs incurred by the

"(B) Fund Depleted. Advances shall not be appropriated to the Response Trust Fund in any fiscal year until such amounts as are appropriated or transferred to the fund pursuant to Section 221 of this Act in the preceeding fiscal year have been expanded or obligated pursuant to Section 111 of this Act.

"(C) Final Date for Advances. No advance shall be made to the Response Trust Fund after September 30, 1990.

"(3) Repayment of Advances. Any advance made pursuant to this subsection shall be repaid in equal payments over a ten year period and interest shall be paid each year, to the general fund of the Treasury. Such interest shall be at the rates computed in the same manner as provided in subsection (b) and shall be compounded annually."

(e) Sec. 303 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 is amended by striking that section and substituting in lieu thereof the following:

"Sec. 303. Unless reauthorized by the Congress, the authority to collect taxes conferred by this Act shall terminate on September 30, 1990, provided however, such authority conferred by this Act and imposed under Sections 4611 and 4661 of the Internal Revenue Code of 1954 shall terminate on September 30, 1990 or when the sum of the amounts received in the Treasury under Section 4611 and under Section 4661 total $2.88 billion, whichever occurs first. The Secretary of Treasury shall estimate when this level of $2.88 billion will be reached and shall by regulation, provide procedures for the termination of the tax authorized by this Act and imposed under Section 4611 and 4661 of the Internal Revenue Code Of 1954. Provided further, such authority conferred by this Act and imposed under Section 4691 of the Internal Revenue Code of 1954 shall terminate on September 30, 1990 or when the sum of the amounts received in the Treasury under Sections 4611, 4661 and under Section 4691 total $4.38 billion, whichever occurs first. The Secretary of Treasury shall estimate when this level of $4.38 billion will be reached and shall by regulation, provide procedures for the termination of the tax authorized by this Act and imposed under Section 4691 of the Internal Revenue Code of 1954."

(f) EFFECTIVE DATE. Any amendment to the Internal Revenue Code of 1954 made by this Title shall take effect as if included in the provisions of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 to which such amendment relates.

TITLE II

IMPOSITION OF TAX ON DISPOSAL OR LONG-TERM STORAGE OF HAZARDOUS WASTE

Sec. 201. Chapter 38 of the Internal Revenue Code of 1954 is amended by inserting after Subchapter C the following new subchapter:

"Subchapter D - Tax on disposal or long-term storage of hazardous wastes

"Section 4691. Imposition of Tax
"Section 4692. Definitions
"Section 4693. Records, Statements, and Returns

"SECTION 4691. IMPOSITION OF TAX

"(a) GENERAL RULE. There is hereby imposed a tax on the receipt of a hazardous waste for (1) disposal at a qualified hazardous waste disposal facility or (2) long-term storage in a qualified hazardous waste storage facility.

"(b) AMOUNT OF TAX. The amount of the tax imposed by subsection (a) shall be $50.00 per dry weight ton.

"(c) EXCLUSION FOR CERTAIN WASTES. The tax imposed by subsection (a) shall not apply to those wastes which are, on January 1, 1984, exempt from regulation as a hazardous waste under Section 3001 of the Solid Waste Disposal Act, as amended. In the event that any of such waste is determined by the Administrator, following studies as required under Section 8002 of such Act, to pose a potential danger to human health and environment, and the Administrator promulgates regulations for the disposal of such waste, then the Administrator shall transmit to both Houses of Congress, along with such regulations, his recommendation of a special tax rate for the disposal or long-term storage of each dry weight ton of such waste. The special tax rate which shall be in lieu of the tax rate in subsection (b) shall take effect only when authorized by Act of Congress.

"(d) LIABILITY FOR THE TAX. The tax imposed by this section shall be imposed on the owner or operator of the qualified hazardous waste disposal or storage facility at which the hazardous waste is disposed of or stored.

"(e) CREDIT FOR PRIOR TAX. (1) A credit shall be allowed in the computation of any tax due under this section on the disposal of a hazardous waste for any tax previously paid under this section by the disposer on the long-term storage of such hazardous waste.

"(2) In the event that a person who has paid a tax under this section on the long-term storage of a hazardous waste causes such hazardous waste to be delivered to and received by another person who is the owner or operator of a qualified hazardous waste disposal facility, then such person who paid the tax on the long-term storage shall be allowed a credit for such tax in the computation of any tax subsequently due on the long-term storage or disposal of a hazardous waste.

"(f) FRACTIONAL PART OF TON. In the case of a fraction of a ton, the tax imposed by this section shall be the same fraction of the amount of such tax imposed on a whole ton.

"(g) PROSPECTIVE APPLICATION OF TAX. The taxes imposed in this section shall not apply to the act of receiving a hazardous waste for disposal or for long-term storage prior to the effective date of this amendment.

"(h) TERMINATION. The taxes imposed by this section shall not apply after September 30, 1990, except that if on any September 30 prior to that date:

"(1) the unobligated balance in the Hazardous Substance Response Trust Fund as of such date exceeds $1.8 billion and

"(2) the Secretary, after consultation with the Administrator of the Environmental Protection

Agency, determines that such unobligated balance will exceed 1 billion on September 30 of the following year if no tax is imposed under Section 4611, 4661, or 4691 during the calendar year following,

then no tax shall be imposed by this section during the first calendar year beginning after such September 30.

"SECTION 4692. DEFINITIONS

"(a) DEFINITIONS. For purposes of this subchapter:

"(1) DISPOSAL. The term 'disposal' means the discharge, deposit, injection, dumping or placing of any hazardous waste into or on any land or water so that such hazardous waste may enter the environment. 'Disposal' shall not include the treatment or recycling of hazardous wastes or the storage of hazardous wastes in a facility described in the definition of 'Qualified Hazardous Waste Storage Facility' below.

"(2) LONG-TERM STORAGE. The term 'long-term storage' means the placement of a hazardous waste in a qualified hazardous waste storage facility with the intent that such waste remain in place for one year or more. There shall be a rebuttable presumption that a hazardous waste placed in a storage facility is so placed with the intent that such waste remain in place for one year or more when a majority of the hazardous wastes previously placed in such facility has remained in place for one year or more.

"(3) QUALIFIED HAZARDOUS WASTE STORAGE FACILITY. The term 'qualified hazardous waste storage facility' means any storage facility, waste pile or surface impoundment, which has received a permit or is accorded interim status under Section 3005 of the Solid Waste Disposal Act. 'Qualified hazardous waste storage facilities' shall not include wastewater treatment facilities permitted by the federal government or by delegated state agencies under the Clean Water Act, or any other hazardous waste treatment facilities.

"(4) WASTE PILE. The term 'waste pile' is a quantity of hazardous waste heaped together as a means of storage as defined under regulations promulgated by the Administrator of the Environmental Protection Agency pursuant to Section 3005 of the Solid Waste Disposal Act.

"(5) SURFACE IMPOUNDMENT. The term 'surface impoundment' is an impoundment in which quantities of hazardous wastes are collected as a means of storage as defined under regulations promulgated by the Administrator of the Environmental Protection Agency pursuant to Section 3005 of the Solid Waste Disposal Act.

"(6) QUALIFIED HAZARDOUS WASTE DISPOSAL FACILITY. The term 'qualified hazardous waste disposal facility' means any disposal facility which has received a permit or is accorded interim status under Section 3005 of the

Solid Waste Disposal Act or under Section 102 of the Marine Protection, Research and Sanctuaries Act, or Part C of the Safe Drinking Water Act. 'Qualified hazardous waste disposal facility' shall not include wastewater treatment facilities permitted by the federal government or by delegated state agencies under the Clean Water Act, or any other hazardous waste treatment facilities.

"(7) HAZARDOUS WASTE TREATMENT FACILITIES. The term 'hazardous waste treatment facilities' means any facility employing any method, technique, or process designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to convert such waste to a non-hazardous waste.

"(8) TREATMENT. The term 'treatment', when used in connection with hazardous waste, means a method, technique or process designed to change the physical, chemical or biological character or composition of any hazardous waste so as to convert such a waste to a non-hazardous waste.

"(9) HAZARDOUS WASTE. The term 'hazardous waste' means any:

"(A) identified or listed under Section 3001 of the Solid Waste Disposal Act, other than waste the regulation of which has been suspended by Act of Congress,

"(B) subject to the reporting or recordkeeping requirements of Section 3002 and 3004 of such Act.

"Provided, however, for purposes of this subchapter, the term 'hazardous waste' shall not mean any waste removed from any facility listed on the National Priorities List (NPL), or for which notification has been provided to the Administrator, Environmental Protection Agency pursuant to the provisions of Sec. 105 or Sec. 103(c), respectively, Title I, of the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

"(10) DRY WEIGHT. The term 'dry weight' means as is actual waste weight less free water content.

"(11) TON. The term 'ton' means 2000 pounds.

"(12) RECEIPT. The term 'receipt' means the act of the owner or operator of a hazardous waste disposal or storage facility by which such owner or operator, at an off-site facility, signs the manifest or shipping paper accompanying the hazardous waste, or at an on-site facility, enters the description and quantity of the hazardous waste in the hazardous waste disposal or long-term storage facility operating record.

"SECTION 4693. RECORDS, STATEMENTS, AND RETURNS

"Every person who disposes of, or stores hazardous wastes for one year or more subject to taxation under this subchapter shall keep records, render such statements, make such returns, and comply with such rules and regulations as the Secretary may prescribe to ensure proper assessment, payment, and collection of the taxes imposed by Section 4691. The Secretary shall consult with the Administrator of the Environmental Protection Agency to ensure that records, statements, and returns required to be kept, rendered, and made under this section shall be consistent, to the extent possible, with the reports required to be submitted to the Administrator under the Solid Waste Disposal Act. The Secretary may require any person who generates, transports, disposes of, or stores hazardous wastes for one year or more and who is required to maintain records under the Solid Waste Disposal Act, the Marine Protection, Research and Sanctuaries Act or the Safe Drinking Water Act, to submit copies of such reports or make such reports available to the Secretary as required."

Sec. 202. The Table of Subchapters for Chapter 38 of the Internal Revenue Code of 1954 is amended by adding the following at the end thereof:

"Subchapter D - Tax on Disposal or Long-Term Storage of Hazardous Waste."

Sec. 203. The amendments made by this Act, unless otherwise provided, shall take effect October 1, 1985.

Mr. GIBBONS. Mr. Early.

STATEMENT OF A. BLAKEMAN EARLY, WASHINGTON REPRESENTATIVE, SIERRA CLUB, AND ON BEHALF OF THE IZAAK WALTON LEAGUE OF AMERICA

Mr. EARLY. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, my name is A. Blakeman Early. I am a Washington representative of the Sierra Club.

I am also providing my testimony on behalf of the Izaak Walton League of America.

One of the first questions that members of this committee must ask about any tax legislation is, "How much money is needed?" We believe that while this question cannot be answered as definitively as the committee would like, it is not an exaggeration to respond, "More than the Ways and Means Committee can figure out how to raise."

When CERCLA was passed in 1980, the concept was to take a first bite at the apple and figure out exactly how big a problem there was and proceed from there.

We know today that the problem is quite huge. As a matter of fact, our view is that the EPA has understated the nature of the problem.

As you know, EPA has estimated that there are approximately 18,000 sites on their ERRIS list, the sites just reported to EPA, and that need to be assessed and then inspected.

What we have found is that because there is so little money in the fund today, EPA has little motivation to see if the ERRIS list needs to be expanded to find additional sites to add to the list and to assess them.

A study conducted by the clean water action project found in many cases sites are not scored for as long as 4 years after discovery.

The reason is because EPA has no motivation to add to the national priority list, a list which is already so large that they had no reasonable prospect of being able to clean up all the current sites on the NPL with the money that is currently in the fund.

So our major concern is that the committee raise enough money to eliminate the motivation that EPA has right now not to go out and look for additional sites, and assess those sites and really define in clear terms the full scope and nature of the problem.

My testimony raises several reasons why there may be significantly more sites that will ultimately be Superfund sites. The first is that, as you may know under the current RCRA Program, all currently operating sites are allowed to continue to operate in interim status until EPA reviews their permit applications. There have been approximately 8,000 permit applications. EPA only granted 115 permits. We fully believe that a lot of mom and pop disposal operations are continuing to operate under interim status until EPA reviews their permit and denies it, at which time they will close.

Many of those sites are likely to become Superfund sites in the future and are going to be on the Superfund list.

We also feel that EPA very well might be underestimating the number of sites that are going to end up on the national priority list because the Mitre model which they used to weigh these sites doesn't consider many of the important factors that those residents who live around these sites do consider. EPA doesn't consider all hazardous waste constituents but only a few priority constituents. They weigh more heavily population density that is potentially affected from exposed releases and not those the populations that are actually exposed.

The Clean Water Action Project looked at sites that have been ranked by EPA and lowered the score arbitrary cutoff EPA uses and found a list of a hundred additional sites that could be on the list if it were just 8-points lower. That list is in the back of my testimony.

Another factor which Lee Thomas mentioned that will contribute to the need for more funds is the leaking underground storage tank program. The Sierra Club and Isaac Walton League are very much in support of this program. It is very strongly needed. It will cost significant amounts. The committee I hope realizes that program has to be considered in the amount of money it raises.

We also feel the EPA's cost estimates are low. This information has been documented much more fully by the GAO estimate which came to the conclusion that the cost of cleanup may be closer to $26 billion ultimately and the OTA report which came to the conclusion that the cost could be as high as $40 billion.

Superfund must have sufficient funds so the effort to find all uncontrolled sites resumes with vigor and sufficient funds are available to clean up those that are found.

Indeed, we would recommend that the committee key the level of feedstock tax to inflation so the purchasing power of the Superfund is not eroded over the 5-year authorization period.

The Sierra Club believes the feedstock taxes appear to be reasonable. The scheme that has been recommended by the Energy and Commerce Committee has broadened the feedstock base. It provides a cap of 3 percent of sales volume. We feel that this system appears to be reasonable. We are certain that many industry representatives will try to persuade you that many hardships will be created by these taxes. Currently we feel the burden is rather low in view of tax benefits provided in recent tax reforms.

A study by the Joint Committee on Taxation of Effective tax rates of large U.S. corporations for 1982 found 6 of the top chemical firms were taxed at a rate of −17.7 percent, down from 13.7 percent in 1980.

According to the Chemical Week, the chemical industry now enjoys a tremendous surge in profitability. Looking at the top ten gainers, profits were up from a low of 59 percent to a high of 1,193 percent over the same period.

I will just briefly touch on some of the other points in my testimony, Mr. Chairman. First of all we believe that the waste end tax should remain a very modest source of revenue and that income, additional income raising should not be attempted on this program which is largely experimental. I think that there have been already sufficient testimony demonstrating the problems with the waste end tax program. It needs to be looked at and should not be relied on as a major source for Superfund income.

Finally, we believe strongly that the collection cap in the current law should remain the same, and should not be lowered which is the recommendation of the Energy and Commerce Committee.

Also, the post-closure liability fund is a fatally-flawed piece of legislation. It was adopted at the last minute in 1980. It is ill-considered. It should be eliminated and Congress should come back in the next Congress and look at the post-closure liability issue.

Thank you very much, Mr. Chairman.

[The prepared statement follows:]

Statement of A. Blakeman Early, Washington Representative, Sierra Club, and on Behalf of the Izaak Walton League of America

Mr. Chairman, members of the Committee, I am A. Blakeman Early, Washington Representative for the Sierra Club. The Sierra Club is a nationwide volunteer organization with over 350,000 members dedicated to the protection of our nation's natural resources. Thank you for the opportunity to appear before the Committee to present the views of the Sierra Club on the Superfund Expansion and Protection Act of 1984. My comments are also offered on behalf of the Izaak Walton League of America.

One of the first questions that members of this Committee must ask about any tax legislation is, "How much money is needed," We believe that while this question cannot be answered as definitely as the Committee would like, it is not an exaggeration to respond, "More than the Ways and Means Committee can figure out how to raise." When CERCLA was passed in 1980, many in Congress and in the environmental community believed that the size of the fund, $1.6 billion, was very inadequate to solve the problem. The Congress has chosen a level of funding that would take an important first step towards clean-up, while providing better data regarding the size and scope of the problem. Well, we know today that the problem is huge, although the Superfund program has failed to satisfactorily define how large a crisis really exists. Let me explain what we know and then try to outline what we do not know about the Superfund problems nationwide.

THE NUMBER OF SUPERFUND SITES COULD GROW DRAMATICALLY, EPA ESTIMATES ARE LOW

EPA maintains an Emergency and Remedial Response Inventory System (ERRIS) which, quite simply, is a master list of all inactive sites reported from reliable and unreliable sources. There are currently approximately 18,000 sites listed. EPA estimates this inventory will ultimately grow to 22,000 sites. EPA and/or cooperating states are systematically reviewing whatever paperwork exists regarding these sites in a one-week "desk top" study. In some cases, the sites are inspected in order to identify those that actually pose a threat to public health and the environment and prioritize them. About 7,000 sites have been through a paper review (Preliminary Asessment) and 2,000 sites have been inspected. Sites that are inspected are normally subjected to the Hazard Ranking System (HRS) used to assess the severity of an uncontrolled site relative to others. Any site ranking above an arbitrary cut off of 28.5 is normally included on the National Priority List. Sites on the NPL are the only sites eligible for clean-up action and funds under CERCLA.

As you can see, this identification and assessment process is not proceeding very fast. Only 7,000 out of 18,000 sites have been reviewed. A study conducted by the Clean Water Action Project found that, in many cases, sites that have been investigated are not scored for four years (1). Why? Because EPA has absolutely no motivation to add to the growing list of unaddressed sites. EPA has proposed to add 133 more sites to the NPL. In addition, Lee Thomas, Assistant Administrator for Solid Waste and Emergency Response, has already testified that EPA will propose to add 100–150 additional sites to the NPL. Yet he has also testified that the current Superfund program is only sufficient to clean up 170 sites. Therefore, there is no point, from EPA's viewpoint, in looking for more sites to add to the ERRIS list, or in expeditiously evaluating the hazard potential of those uncontrolled sites already on the list. To make matters worse, it is not clear that the states have much incentive to cooperate with EPA in identifying all uncontrolled hazardous waste sites. Telephone conversations with State officials indicate that at least some states are not reporting all the sites they know about. Indeed, one state official estimated that some 600 sites were on his list that are not on the ERRIS list. Apparently, some state officials believe it is not worth the bother.

Let me assure you, the American people believe that this program should not operate on a "crisis site of the week" basis, allowing these sites to be identified only when they have leaked sufficiently to create a major public health or environmental threat. The American people want an end to this kind of uncertainty. This program must be funded at a high enough level so that EPA has no incentive to avoid funding and assessing additional uncontrolled sites.

Since EPA has delayed the identification and assessment process, we also do not have as accurate an idea of how many sites will actually need clean-up. EPA estimates approximately 1,400 to 2,200 uncontrolled sites will need cleanup. But a survey of state solid waste officials found that over 7,000 uncontrolled sites will need some sort of remedial response. Therefore, we can see that the EPA estimate may well be a conservative one.

MANY NEW SITES MAY BE FOUND

Of course both of these estimates do not take into account the number of additional uncontrolled sites which will be added to the total Superfund cleanup list as a result of currently operating hazardous waste management sites which will close soon and then subsequently leak after the site owner has disappeared. This category of Superfund sites may well be the hidden iceberg in the Superfund crisis. Briefly, EPA and the states are just now taking action to process the more than 8,000 applications for storage, treatment and disposal permits that have been received. As you may know, a hazardous waste management facility in existence at the passage of the Resource Conservation and Recovery Act (RCRA) could continue to operate under "interim status" as long as it applied for a permit and obeyed the interim status regulations which are considerably weaker than the regulations applicable to facilities granted final permits. We believe that many "Mom and Pop" storage and disposal facilities have continued in operation awaiting EPA's request for permit justification data. Then they plan to cease operations. Once these facilities have closed, there is strong question whether the original owners will have sufficient assets to pay for the cleanup of any leaks that may occur. We may see a substantial addition to the overall list of uncontrolled sites needing Superfund-assisted cleanup from this category of interim sites.

THE HAZARD RANKING SYSTEM UNDERESTIMATES PROBLEM SITES

The last issue to consider regarding the number of uncontrolled hazardous waste sites that may need to be cleaned up is the factors weighted in the EPA Hazard Ranking System and the use of a 28.5 score as the cut-off for NPL consideration. The Mitre Model which is used weighs only the most hazardous substances in the site, rather than considering a composite of all hazardous constituents. In addition, the model weighs more heavily the population density of the area potentially exposed to hazardous substances leaking from the site and not those actually exposed. Therefore, a site located in a rural area might actually be exposing more people but receive a lower score than a comparable site located in a more highly populated area. Also, the Mitre Model used in the ranking does not factor the potential accumulation of toxic substances into food supplies or ecological systems. If, for example, the current score was lowered to 20.0 in order to compensate for these shortcomings in the current ranking system, a study by the Clean Water Action Project found that an additional 100 sites would qualify for the NPL and be eligible for funds (2). This is a nearly 20 percent jump in the number of sites eligible for cleanup.

While some members of the Committee may judge that my points regarding the number of sites that need cleanup are only speculation, I respectfully suggest that there is little basis for speculating that the number of these sites is smaller than EPA's conservative estimates.

In addition to the calculations concerning how many uncontrolled hazardous waste sites may need remedial response under Superfund, the Committee must take into consideration a whole new category of cleanup activity arising from the new Leaking Underground Storage Tank program created by H.R. 5640. To its credit, the Energy and Commerce Committee recognized that the problems of groundwater contamination arising from the leaking petroleum products stored in underground tanks may post a greater hazard than contamination arising from uncontrolled hazardous waste sites. Estimates are that there are between 1 and 2 million underground tanks across the country which contain petroleum products such as gasoline. Since these products are not wastes, leaks from such tanks cannot be addressed by

Superfund under existing law. Experts estimate that approximately 75,000 underground tanks are leaking now and that as many as 350,000 may develop leaks within the next five years. Under H.R. 5640, the Superfund could be used to clean up contamination from underground storage tanks even under circumstances when it is not clear if, in fact, the source of the contamination is an underground tank. We believe that the Leaking Underground Storage Tank program is an extremely valuable advance in the protection provided by Superfund. At the same time, the program will create significant new demands on Superfund from a revenue standpoint.

EPA'S COST PER SITE FOR CLEANUP ARE LOW

Finally, in the assessment of the size of the problem, we come to the question of how much each site to be cleaned up will cost. EPA calculates that federal cleanup at 1,400 to 2,200 NPL sites will cost an estimated $8 to $16 billion. But the high-end cost calculation assumes 56 percent of the sites will require engineering work to address groundwater contamination at a cost of only $3.5 million per site. The cost of containing groundwater contamination is likely to range much higher than $3.5 million for the average site. This is a very conservative estimate and explains in part why the General Accounting Office estimates cleanup costs for National Priority List sites could run as high as $26 billion and the Office of Technology Assessment estimated that the cost of cleaning up most of the known sites could be as much as $40 billion.

The need for a giant increase in the Superfund is clear. We believe that the $9.5 billion provided in H.R. 5640 is in fact the minimum necessary to establish the kind of program that Americans nationwide are demanding. Superfund must have sufficient funds so that the effort to find all uncontrolled sites resumes with vigor and sufficient funds are available to effectively clean up those that are found. Indeed, we would recommend that the Committee key the level of feedstock tax to inflation so that the purchasing power of the Superfund is not eroded over the five year authorization period. According to preliminary calculations by the Congressional Research Service, this modification to the tax system in H.R. 5640 would raise an additional $.9 billion over the five year authorization. This strengthening amendment would help ensure that a good faith effort was being made by Congress to create a Superfund program that could remedy a significant portion of the abandoned dump problem that plagues this nation.

THE FEEDSTOCK TAXES ARE REASONABLE

The feedstock tax system in H.R. 5640 is largely the same as in the current law. We strongly support this system as one which has been an administratively simple and stable source of revenue. In order to help raise the additional funds needed, H.R. 5640 would broaden the tax base to include 20 additional feedstock substances. All of these substances have been found in numerous Superfund sites or meet the criteria used to select feedstocks under the original law. While H.R. 5640 increases the rate at which the feedstocks will be taxed, it establishes what appears to us to be a reasonable cap which is the lower of either three percent of each substance's projected 1986 sales price or a specified cap. This scheme, which is based on the current law, would appear to ensure that no industry suffers undue hardship as a result of the feedstock law.

Now we are certain that many industry representatives will try to persuade you that tremendous hardship will be created by these taxes. Since the Sierra Club has no tax experts on its staff, we can only urge the members of the Committee to consider carefully the revenue consequences of any relief it may choose to grant in reducing the taxes proposed in H.R. 5640. Frankly, our sympathy for the tax burden currently borne by the chemical and petroleum industries is rather low in view of the tax benefits provided by recent reforms approved by this committee. A study by the Joint Committee on Taxation of the effective tax rates of large U.S. corporations for 1982 found six of the top chemical firms were taxed at a rate of negative 17.7 percent, down from plus 13.7 percent in 1980. The petroleum industry has enjoyed a drop in tax rate of 13 percent during the same period. Of course, some of this is attributable to the economic recession during which chemical industry profits were low. According to Chemical Week, the chemical industry is now enjoying a tremendous surge in profitability. Looking at the top ten gainers, profits were up during the first quarter of 1984 from a low of 59 percent to a high of 1193 percent over the same period in 1983. And just as we have seen in the auto industry, these corporations have been generous in their expressions of appreciation to their CEOs. According to Chemical Week, salary bonuses have ranged from a low of 15 percent to a high of 76 percent with the President of Hercules Corporation topping the $1 million mark. Surely, times cannot be so tough that these corporations cannot help deal with some of the problems their tremendous success has left in its wake?

THE WASTE-END TAX SHOULD REMAIN A MODEST SOURCE OF REVENUE

H.R. 5640 creates a new tax program that imposes a tax on the disposal of any hazardous substance disposed of pursuant to Subtitle C of RCRA. Long-term storage would also be subject to the tax. This program was developed to provide much-needed revenue for Superfund and to simultaneously create an incentive on the part of waste generators to either recycle or otherwise eliminate the amount of waste of which they dispose. We view the goal as a worthy one, but urge the Committee not to shift any more of the revenue-raising responsibility to this program. Quite simply, it is not clear that the waste-end tax program will work. With the need for revenue as desperate as I have described above, it would be ill-advised to rely on what must be described as an experimental program for more than a small percentage of that revenue.

For example, three states, New York, California, and New Hampshire have attempted to use a waste-end tax. They found that revenues fell significantly below expectations. In fact, New York acquired only one-third of projected revenues. In addition, the waste-end system multiplies astronomically the number of entities that are subjet to the tax. One of the beauties of the feedstock system is that the number of taxable entities is far more limited and thus does not force the creation of a large bureaucracy to implement and enforce the provisions.

The waste-end tax could have two unfortunate impacts which must be assessed before this program could be enlarged. First, to what extent does the imposition of the waste-end tax encourage illegal disposal rather than legitimate forms of waste reduction? Under the current scheme, as long as one avoids taking the waste to a disposal facility, one avoids the tax. Obviously, the promotion of illegal dumping would be counter-productive. Second, the tax is only applicable to wastes which EPA identifies in accordance with RCRA. EPA has been under tremendous pressure to de-list that waste it has already identified and minimize adding wastes to the hazardous list. This pressure sparked the passage of provisions in H.R. 2867 which the House passed late last year to more aggressively list wastes, such as dioxin-contaminated wastes, and to narrow EPA's ability to de-list wastes without public review. An imposition of a waste-end tax just adds a new set of financial stakes to the regulatory stakes regarding whether a waste is listed or de-listed. Thus, the waste-end tax and H.R. 2867 may be working against each other. Clearly, these questions need to be studied in the context of the modest program proposed in H.R. 5640 before the waste-end tax program is expanded.

THE COLLECTION CAP SHOULD REMAIN THE SAME

Under the current Superfund law, the EPA has allowed a certain level of funds to accumulate during the last two years of the program without spending them, collections under the feedstock program automatically are suspended. A recommendation of the Energy and Commerce Committee among the amendments to Title V of H.R. 5640 would have the effect of drastically reducing the percentage of unspent funds that could accumulate before the termination of the feedstock fee would be triggered. We are vigorously opposed to this proposal. Currently, more than 95 percent in the next to last year and 50 percent in the last year must be accumulated. The proposal by the Energy Committee would lower this to 90 percent and 40 percent, respectively. This provision serves only to encourage this administration to delay spending the funds in order to terminate the feedstock tax as soon as possible. This is exactly the opposite incentive we want to provide. Naturally, every corporation subject to the tax will have the same agenda. We believe that it is crucial to provide as many incentives as possible to aggressively identify uncontrolled hazardous waste sites and clean them up rather than to continue strategies followed during the first three years of this administration designed to slow the spending of Superfund clean-up money. My earlier testimony regarding the number of sites that will need clean-up provides ample evidence that EPA will need to spend all funds and them some. This provision was devised because some Members believed that so few sites would need attention that all the revenues might not be needed. This is clearly no longer the case.

In addition, EPA may well accumulate significant amounts of funds in the first three years under H.R. 5640 as it does the necessary remedial investigation and feasibility studies prior to construction. It is the construction phase that will draw most heavily on available funds. I would note that completion of the remedial investigation and feasibility studies under the mandatory schedule provided will not occur until three years after passage. Assuming the legislation passes this September, it is not unreasonable to assume that EPA will still have a large percentage of unexpended funds ear-marked for construction only a year later when the first revenue collection cap would be triggered. Construction delays could clearly leave EPA with 28 percent of collected funds when the second trigger would apply. If the Committee feels it necessary to have some trigger to suspend collection of the taxes, we urge a return to the percentages found in the original law.

THE POST-CLOSURE LIABILITY FUND SHOULD BE ELIMINATED

The Post-Closure Liability Fund (PCLF) was enacted as part of Superfund in 1980 without any serious debate or discussion. The House was forced to accept the Senate provisions as part of a compromise package enacted during the lame-duck session. The original concept was to provide a source of funds for cleanup and damages arising from leaks that occur from sites that have already closed where the owner has disappeared or is insolvent. What the PCLF does is relieve site owners who may in fact be solvent and available from liability five years after the site is closed. In the site owner's place is a fund which in all likelihood is far too small to cover all potential liabilities. We believe that those who may be exposed to hazardous substances that have leaked from closed sites many years hence are worse off under the PCLF program than they are under existing law. Here are a few of the flaws in the PCLF program:

(1) EPA's regulations are currently inadequate. They provide little assurance that sites will not leak after closure. The transfer of liability from the owner to the PCLF eliminates the best incentive the ower has to manage wastes more safety than EPA requires.

(2) It is impossible to determine how many sites will ultimately leak and the amount of cleanup and compensation funds that will be needed. To the extent that the PCLF is under-funded, land disposal, the least desirable option, is subsidized relative to more desirable alternatives.

(3) Although all sites will contribute to the PCLF, only those that do not leak within five years of closure can transfer liability. Those that do leak within five years and do not qualify to use the PCLF have had needed funds diverted to sites which may not pose problems for many years. Where do the victims of these sites turn?

(4) States will be delegated supervision of closure operations. Yet these states will bear no responsibility for letting an inadequate site transfer liability to the PCLF. Indeed, they may have an incentive to transfer liability for as many sites as possible to avoid paying for future cleanups out of state funds.

The PCLF program is fatally flawed. We urge the Committee to let it die. Currently operating sites will not qualify for some time, because EPA has issued few final permits. If the Committee feels compelled to revisit the issue in the future, it could do so without the burden of an existing "lame duck" program.

FOOTNOTES

(1) *Too Few, Too Slow,* A Report on the Environmental Protection Agency's Assessment of Hazardous Waste Sites for Inclusion in the Superfund program, June 6, 1984.

(2) *Id,* Exhibit B.

EXHIBIT B

The following list contains sites which rank below the arbitrary cut-off point of 28.5 on the Hazard Ranking Score (HRS). The HRS is the method used to determine whether or not an uncontrolled hazardous waste site is eligible for inclusion on the National Priority List (NPL). The sites on the NPL are eligible for cleanup funds under Superfund.

Site name	City	Hazard ranking score
Alabama: Callahan Property	Prattville	22.0
Arkansas: Midland Products Co	Ola	21.9
California:		
Apache Service LF	Chula Vista	26.0

Site name	City	Hazard ranking score
General Disp Co	Santa Fe Springs	26.2
General Electric Co	Oakland	21.1
Kellogg Terrace	Yorba Linda	23.4
Masonite Mill-Mescat Field Site	Hoppa Vly Ind Res	20.9
Valley Wood Preserving Inc	Turlock	25.0
Westinghouse-Sunnyvale	Sunnyvale	28.3
Colorado:		
Gateway Vanadium Mill	Gateway	27.8
Hendricks Mining & Milling	Boulder	27.8
Koppers Co. Inc	Denver	25.0
Loma Vanadium Mill	Loma	26.6
Connecticut:		
Coastal Tank Lines	Wallingford	23.8
South Windham Landfill	South Windham	24.9
Florida: Nocatee Hull Creosote	Nocatee	20.0
Hawaii: Wheeler Air Force Base	Honolulu Oahu	20.2
Idaho: FMC Corp-Pocatello	Pocatello	22.7
Illinois:		
A&F Materials Co	Olney	24.6
Carpentersville Waste Site	Carpentersville	27.0
Koppes Co. Inc. Forest Prod Grp	Carbondale	25.5
Martin Peoria Term	Peoria	20.7
Ottawa/Luminous Processes	Ottawa	20.7
Taylorville Landfill	Taylorville	21.2
Thomas 12th St. Landfill	Danville	23.6
Indiana:		
Du Pont E I De Nemours & Co	E Chicago	20.8
Energy Cooperative Inc	E Chicago	22.8
Levin & Sons	Fort Wayne	23.3
Midco II	Gary	23.6
Neals Dump	Spencer	26.8
Vulcan Materials Co	Gary	20.0
Iowa: Midwest Manufacturing Co	Kellogg	20.6
Kansas: Derby Refining Co	Wichita	27.4
Kentucky:		
Harrison Cnty Site	Cynthiana	24.3
Maxey Flats	Hillsboro	20.8
Maine:		
Green Street Site	Houlton	22.0
Mechanic St. Site	Houlton	22.0
Saco Municipal Landfill	Saco	24.4
Maryland:		
Joy Reclamation Co	Glen Burnie	25.5
Montgomery Bros	Northeast	21.2
Massachusetts:		
Holden Dump	Holden	24.3
Schpack Dump	Norton	28.1
Michigan:		
Bachman Road Residential Wells	Oscoda	22.4
Barrels Inc	Lansing	22.6
Charlevoix Chem Manuf Co	Charlevoix	25.1
Darling Road Dump Site	Milan	21.8
Dowagiac Landfill	Dowagiac	26.5
Hartley & Hartley	Kawkawlin	20.1
Harvey Residential Wells	Harvey	23.9
Kalkaska Residential Wells	Kalkaska	26.1
Lyon Twp Dump	Lyon Twp	23.4
Martinsville Road Disp Site	Waltz	27.9
Norris Ind	Ypsilanti	20.1
Page Avenue Dump	Michigan Center	27.7
Straits Steel & Wire Co	Ludington	26.1
Sunrise Landfill	Wayland Twp	23.0
Systech Liquid Trmt Corp	Muskegon Hts	24.8

Site name	City	Hazard ranking score
Village of Atlanta Wells	Atlanta	23.0
Missouri:		
Amoco Oil Co	Sugar Creek	28.0
Baldwin Park Dump	Aurora	22.5
Bubbling Springs Arena	Fenton	24.1
Erwin Farm	Verona	22.0
Farmer's Chemical Co	Joplin	25.0
St. Joseph City LF-Pigeon Hill	St. Joseph	23.7
Wheeling Disposal Service Co. Inc	Amazonia	25.0
New Hampshire:		
Grugnale Waste Disp. Site	Milford	22.5
Milford Municipal Landfill	Milford	20.9
New Jersey:		
Barrier Chemical	Vernon	26.7
Duck Island Sanitary Landfill	Hamilton Twp	27.1
Ideal Cooperage Inc	Jersey City	25.0
Mile Marker 28	Manchester	25.0
White Chemical Corp	Bayonne	24.7
New York:		
Clothier Site	Granby	26.3
Edward Allen Landfill	Corning	28.3
Pfhol Bros. Landfill	Cheektowaga	24.9
North Carolina:		
Duke Refining Corp	High Point	20.0
H & S Processors Inc	Lincolnton	28.4
Ohio:		
Anaconda Ave. George Off Site	Akron	23.9
Armentrout Excavating	Xenia	22.9

Mr. GIBBONS. Thank you. I thank all of you for coming and for waiting and for helping us with this problem.

Mr. Holmer and Mr. Seibert, both of you said Congress is moving too far too fast and it will adversely impact the industries you represent. Would you elaborate more for me any more than you did in the brief time we had.

Mr. HOLMER. I think we are concerned, Mr. Chairman, with the fact that it is a complex surge, that the examination of EPA's ability to spend these largely increased funds is an extremely important factor. I was delighted to see a fair amount of conversation on that earlier.

Also, that the economic impact upon the industry we consider to be extremely serious. We have seen very little attention paid to that. We would urge that careful examination of these factors be taken before funds that may well be excessive are appropriated without consideration taken.

Mr. SEIBERT. Mr. Chairman, we support the goals of Superfund certainly. We are concerned that the bill passed by the House Energy and Commerce Committee expands the program and therefore would divert moneys from the original intent of the legislation to cleanup sites to other programs.

Mr. GIBBONS. Underground storage tanks—are they a problem?

Mr. EARLY. We believe they are a very significant problem, Mr. Chairman. Briefly the numbers are that it is estimated there are between 1 and 2 million tanks already in place nationally, approximately 60,000 tanks are being installed or replaced every year.

EPA estimates that approximately 75,000 tanks, underground storage tanks are leaking today and that that number over the next 5 years could grow to 350,000 leaking tanks nationwide. This is a very serious problem. It is one that is very logical to address in this legislation and we are very much in support of it.

Mr. **Gibbons**. To whom do these tanks belong and what kind of tanks are we talking about?

Mr. **Early**. A large number are gasoline storage tanks and they are owned by everything from your local gas station to very large industrial complexes, grocery store complexes, department stores, just a wide variety of sources. The problem is that many of them are just thrown in the ground. Many of the tanks are steel, completely unprotected. They are exposed obviously to a great deal of moisture, deteriorate and begin to leak at significant rates and it takes a very small amount of gasoline to contaminate millions of gallons of drinking water in an underground aquifer.

Mr. **Seibert**. We at the NAM, Mr. Chairman, we agree with Mr. Thomas of EPA that first the program should be studied and hopefully it can be dealt with administratively. We are concerned that provisions of H.R. 5640 would be very costly, again diverting from site cleanups the funds necessary there.

Mr. **Early**. I would point out, Mr. Chairman, that there seems to be very little current authority for EPA to take effective action in this area. The only statute they have been looking at is the Toxic Substances Control Act. We believe EPA would be in court for years attempting to use that authority to establish an underground storage tank program.

Mr. **Gibbons**. Most of these tanks contain gasoline; is that what you are saying?

Mr. **Early**. And other petroleum products, yes.

Mr. **Gibbons**. Petroleum products, OK.

Diesel oil, things of that sort?

Mr. **Early**. Right.

Mr. **Gibbons**. Is there any great dissention on the panel about the condition of these tanks and the nature of the tanks and the fact that we do have a problem with them?

Mr. **Fortuna**. No.

Mr. **Holmer**. I think that probably in the later testimony when the API testifies they will address that subject a lot more informed than some of us.

Mr. **Gibbons**. All right, fine. We will listen to them.

Part of this is a transfer of the $13 billion that Mr. Thomas outlined, a transfer from what would normally be State expenses for maintaining some of these cleanup sites, transferred to the Federal Government, of this cost.

What do the members of the panel feel? Should we leave this cost with the State government or transfer to the Federal Government that cost?

Mr. **Early**. Mr. Chairman, there are two significant issues involved. First of all, of course, States have had a very significant difficulty raising the kind of money that is needed to continue operation and maintenance of these sites. This problem——

Mr. **Gibbons**. There are only $434 million, which is over a 5-year period.

Why do the States have that much trouble? Most of them do a lot better than the Federal Government, as far as raising money.

Mr. EARLY. The way the current law is set up is that EPA pays 90 percent of the capital costs of cleaning up the site.

Mr. GIBBONS. Yes, I know that.

Mr. EARLY. And the States are required to pay 100 percent of the operation and maintenance costs as long as the site poses a potential problem. This is a rather major undertaking.

The experience that we have seen that the committee looked at, the Energy and Commerce Committee, is that of course EPA, having a small amount of money in the current program, has a strong motivation to take a cheap approach to cleaning up, cheap approach to the capital investment in initial cleanup, knowing the States pick up the operation and maintenance costs. So they do what we consider to be an inadequate cleanup job because they know the States are picking up the operation and maintenance costs.

Part of the reason the Energy and Commerce Committee chose to shift the costs to the Federal Government is that EPA no longer has a motivation to try to escape these costs by short-changing the solution in the initial cleanup investment.

Mr. FORTUNA. I might add that the council members strongly support the move to shift the costs to the fund away from the States. It is a major impediment to the States to choosing ultimate methods of management that will assure permanent destruction and containment of the waste as opposed to shifting the materials from one land disposal to another.

Mr. GIBBONS. Maybe if the States had done their job the first time, we wouldn't have all this $13 billion program here, maybe. You know, they have the police power and have had the police power ever since the founding of this union to control this kind of mess.

I don't look at it as though we are dumping anything on them; they are dumping it on us, as I see it. If the States had been doing half of what they have been telling us they were doing for years, we would not have this mess. There is not a State in the Nation that couldn't have controlled this at the beginning.

Mr. EARLY. I don't disagree with you at all, Mr. Chairman.

Mr. GIBBONS. Now they dump it on us. Now they dump the whole cost of operation and maintenance on us. They get up and pass these pontifications about us balancing the budget, but they don't give a hoot about anything else.

Mr. EARLY. One of the experiences we have had, Mr. Chairman, working with the States——

Mr. GIBBONS. I will talk to the Governors next week, and I am just practicing. Go ahead.

Mr. EARLY. One of the values of the Federal program is when we have tried to work with the States, they cite the fact that if they are too tough on regulating the problem, it will drive industry, both new and old, into other States that don't. So the value of creating a Federal overriding minimum program to which all States must conform is to eliminate this tendency for States to compete to see who can provide the best deal to new industry in terms of lax pollution controls.

Mr. **Gibbons**. That is the most logical argument I have heard. I am not sure I am ready to buy it, though.

Other members?

Mr. **Conable**. I have questions, Mr. Chairman. I would like to ask Mr. Holmer a question.

On page 34 of the background pamphlet prepared by the Joint Committee on Taxation, there is a reference to a study made by ICF, Inc., for APA, that 77 percent of all regulated hazardous wastes are produced by the chemical refining and metal industries which are the primary payors of the feedstocks tax.

Does that square with your own statistics, and how relevant is that statement?

Mr. **Holmer**. Our statistics would generally bear this out as accurate. But in our opinion, it is irrelevant in that this represents the hazardous waste generated by these companies and totally ignores what we do with them between that point and disposal, such as recycling, such as treatment, such as incineration; so that while it is an interesting number, it doesn't bear much on the problem.

Now, according to our numbers, the amount of hazardous wastes which is attributable to the chemical industry actually disposed of is someplace under 50 percent, perhaps as low as 40 percent, with other industries accounting for the balance. That is our best guess at this moment.

Mr. **Conable**. From that, do you conclude that the feedstock tax is unfair in its incidence?

Mr. **Holmer**. The most fair thing about the feedstock tax is it is currently in the law, and if the Congress were starting from scratch to consider the most fair tax, it would certainly, had it time to do it compared to the rush with which it was done in the lame duck Congress several years ago—I think they would most certainly try to get a closer correlation between the taxing and the problem.

The feedstocks tax is pretty remote from the hazardous waste that has been deposited in these dumps in the last 30 or 40 years in this country.

Mr. **Conable**. Is the feedstock tax harming U.S. trade?

Mr. **Holmer**. There is no question whatever in our mind that it is harming us in trade. I gave the trade statistics in my summary, which are alarming.

There are a number of factors which have resulted in these trade figures deteriorating the last 3 years. Certainly, the strong dollar has had a major impact. Certainly, the booming economy here has caused imports to come in. But it is in our mind the additional factor that we pay these feedstocks taxes.

The effect is not just on imports, but it is even more important on our ability to compete in the export market. If you look at the export market decisions on whether to buy or not buy by these customers, they are made on the basis of differentials of $2, $3, $4, $5 a ton. Now, we are paying $5 a ton almost on a lot of these derivitives, or these primary chemicals; and, obviously, if the feedstocks tax is quadrupled to $17 a ton and these decisions are being made on differentials of $3, $4 a ton, our position in the export market will deteriorate further, and sharply.

Mr. CONABLE. Can you tell us, do you have any evidence that the other countries are absorbing these dumping costs in some other way so that the costs are showing up in the price of their petrochemicals?

Mr. HOLMER. Oh, oh, I heard that.

Mr. CONABLE. That allegation was made.

Mr. HOLMER. There are two areas in the world where we have had the most deterioration in the trade balance in the last 3 years—Europe and Latin America. Latin America, I am afraid to this point, has not spent much in this general area. They are less developed, and it will come later.

In the case of Europe, Europe is in better shape than the United States because of the compressed population. They have not put much on the land in the last 30 years like we did. They have incinerated a great deal. A lot of these incinerators have been put up by the governments of the countries of Europe, recognizing it is a broad societal problem.

There is some depositing in caves of all things in Europe. Again, that is under government control and financing. So it is a mixed bad in Europe.

In my opinion, when you get down to the bottom line—we hit feedstocks in the United States to make up for lost time—the effects on export trade will be drastic.

Mr. CONABLE. Thank you.

Thank you, Mr. Chairman.

Mr. GIBBONS. Questions?

Mr. MOORE. Thank you, Mr. Chairman.

Mr. Holmer, I have three questions from reading your testimony. I would think that because you point out the trade problems, and we are hearing this now again in reference to the question by the gentleman from New York, that you would favor this committee moving towards an import fee on imported downstream derivative chemical products, is that right?

Mr. HOLMER. Actually, the import fee was invented in the House Environment and Energy Committee, and we knew that that was going on, but fundamentally took no position, and have still not taken a position on the imposition of an import fee in order to prevent this effect.

It is logical, but we have not studied it and taken a position on it.

Mr. MOORE. Is that because of the fact that some members produce chemicals in foreign countries and it works to their disadvantage?

Mr. HOLMER. Yes, sir, whenever our association gets involved in foreign trade matters, we split between those who would like to protect and those who would be very international. So, we have a very difficult time when it comes to raising duties and tariffs in our association.

Mr. MOORE. OK.

Mr. HOLMER. I will reiterate that the import matter is one thing; we export twice as much, though, so the loss of the export market in my opinion is even more important than the import situation.

Mr. MOORE. That is my next question. Would your organization favor this committee exempting from the feedstocks tax any chemical or metal produced for export?

Mr. **Holmer**. Again, we have not taken a position on that, but I would feel pretty safe by saying yes.

Mr. **Moore**. The last question—I think that something of a conclusion I have come to, and I think your own company would be able to testify to this, and I know CMA staff worked with us in doing a newsletter that I reported in to my Congressional District, that I am afraid the future looks rather bleak in this country for the petrochemical industry producing chemicals from natural gas feedstocks because there are other countries in the world, such as Saudi Arabia, perhaps Mexico, that have natural gas a great deal cheaper than we have.

It is just a matter of time before they can make that basic petrochemical feedstock chemical cheaper than we can. Do you agree with that analysis?

Mr. **Holmer**. The sharp deterioration in our trade balance in the last 3 years has not been impacted by these factors, not so far. This sharp change has taken place irrespective of those threats.

However, in the balance of this decade, we are going to see enhanced competition in the international theater from these plants in areas where gas feeds are relatively cheap.

I don't think we will see much in the way of petrochemical feedstocks from the Middle East plants, but we will see some of our deep exports taken over by these operations that are being built in some of these gas-rich countries.

Mr. **Moore**. Doesn't that then exacerbate the situation—of this Superfund feedstock tax further to deteriorate our ability to compete?

Mr. **Holmer**. Yes, we will have a difficult time without this large increase in feedstock taxes, and with that added onto the already-gloomy future, as you say, is going to make it considerably worse.

Mr. **Moore**. Thank you.

No further questions, Mr. Chairman.

Mr. **Gibbons**. Mr. Guarini.

Mr. **Guarini**. Mr. Holmer, has any feasibility study been done by CMA regarding the impact of the feedstock tax on jobs, the trade balance, and possible plant closing?

Mr. **Holmer**. The DeWitt study to which I referred in my testimony was a CMA-sponsored study. We did go to a consultant and asked them what the impact might be. In my statement, to repeat what their conclusions were, they concluded that the impact on the employment could lead to elimination or jeopardizing 30,000 industry jobs, shutting down of nearly 4 billion pounds of primary petrochemical capacity, and jeopardizing an additional 3.5 billion pounds of capacity and restricting future plant investment.

I might add here that we have just gone through a horrendous period in the last 3 years. I listened with some amusement to these tax figures quoted for 1982 for the chemical industry, and I referred to the fact that the petrochemical part of this industry lost $400 million in that year.

You don't pay very much taxes based on 400 million in losses. Our own company is very typical of the petrochemical segment of our companies in the United States.

In 1982, and 1981, we shut down 15 percent of our total capacity, eliminated approximately 1,500 jobs and made a return on total operations of 2 percent, with losses in our petrochemical sector.

I know of many other petrochemical companies whose steps were much more drastic than that.

Mr. GUARINI. Let me ask you, because we are limited in time here, is the DeWitt study public? Would you make that available to the committee so we can have the benefit of your report?

Mr. HOLMER. We shall. We will give that for the record.

[The material has been received and retained in the committee files.]

Mr. GUARINI. Can you characterize the petrochemical industry today? Is it in good times, depressed times, whatever?

Mr. HOLMER. The petrochemical industry is almost a conglomerate type of industry in that it ranges from the petrochemical sector upstream all the way to extraordinarily specialty consumer products in the downstream.

The petrochemical part on which these taxes fall, is still highly depressed. It is gradually getting onto its knees and hopefully, struggling to get to its feet. The specialties and downstream parts of these industries are getting rather healthy now, such that the overall returns to some of these companies are getting up to reasonably but still mediocre levels.

Mr. GUARINI. Can the cost of these feedstock taxes be passed on?

Mr. HOLMER. It is variable. We all attempt to pass the taxes on to the next step, at least from feedstocks. The problem falls on the first derivative. For example, the large 4.5 percent revenue tax on ethylene, not the 3 percent so widely quoted, goes to polyethylene.

That polyethylene industry, which is part of our industry, must then pass those on. They have real difficulty doing that in the depressed market.

Mr. GUARINI. Let me ask you, quickly if I can, I understand that EPA says the problem is a $8- to $16-billion problem, and the GAO says it is a $26-billion problem.

What does your feasibility study show the extent and enormity of the problem is? How much does your study estimate it will cost to make an entire cleanup of the hazardous wastesites?

Mr. HOLMER. The best data we have is the overall total estimates of EPA that are ranging someplace between $6 and $16 billion.

Mr. GUARINI. You don't have any other estimates other than EPA's?

Mr. HOLMER. No; but we think they are more qualified than the others who have been throwing out estimates.

Mr. GUARINI. They say there are about 2,200 sites in the NPL. The States say that there are perhaps as many as 7,000 sites. Do you have any estimates concerning the number of sites you think should appear in the NPL?

Mr. HOLMER. No; we have to rest with the range that EPA has between 1,400 and 2,200 with a possible best guess at 1,800. We don't have an opinion on those State estimates.

Mr. GUARINI. You want to go at the rate of $675 million annually, which would take 18 years, I believe, to clean up all the wastesites we have now. The EPA says they want to go at the rate of $850 million a year, which would take less time. If there are many more than the 1,800 sites, your estimate, that if there are, in fact, 6,000 or 7,000 of these sites it would take as many as six decades at the rate that you propose that we spend money to clean up these sites. Do you have a comment?

Mr. **Holmer**. I can't quibble with your arithmetic. I think it would be incumbent upon the committee to thoroughly examine the claims by the States and to engage both the States and EPA in that dialog. We believe that with the tax that you talked about plus the interest on the fund plus the recoveries from people whose sites have been cleaned up by the Government, that $850 million is probably a low number.

Mr. **Guarini**. Would all that money go to cleaning up or would some of the money go to emergency relief and operation and maintenance on a long-term basis?

Mr. **Holmer**. Yes.

Mr. **Guarini**. So all the money will not go just for cleaning up. There are other areas that the money will be used for.

Mr. **Holmer**. That is correct, but we believe that we have been very conservative in the interest and recovery by responsible parties and that the number would be right that we talked about.

Mr. **Guarini**. We are talking about today's dollars. We are talking about a term of 10 to 14 years, so we are going to be talking about nearly twice the sum of money. If we don't get at it now we may never be able to clean up the sites.

Mr. **Holmer**. We agree. We believe EPA should bring people on board and train them. We don't doubt for a minute that the real limitation is the human resources. When we do our own projection we are always limited by human resources getting them trained to do the job, so Thomas' testimony was not surprising to us.

Mr. **Guarini**. But you do admit that something should be done on a crash basis so that we can clean up our environment as soon as we possibly can, recognizing the limitations?

Mr. **Holmer**. We don't admit it. We have been a proponent of it for some time. We have been encouraging all our member's companies to clean up their sites. It is to their benefit because if they don't get together and do it the Government is going to do it and it is going to cost them 3 or 4 or 5 times as much.

Mr. **Gibbons**. Mr. Gephardt.

Mr. **Gephardt**. I would like each panel member to comment on whether or not you think the composition of taxes and the ratio between the taxes called for is the way you would like to see it done.

Mr. **Early**. I am not a tax expert being with the Sierra Club. I sat through and read the presentation of the Energy and Commerce Committee and the composition of the tax appears to be fair. Obviously, this committee is going to be looking very long and hard at the burdens that the tax may bring on any one particular company or any one particular industry and that is appropriate.

We are concerned that at least $9.5 billion be raised because it is very clear that considerably more than that is actually needed to solve the problem.

Mr. **Seibert**. NAM has not been able to reach a consensus on these programs, due in part because we have members on both sides of the issue. Also we are hopeful that the President's report which is due this year should give us further guidance.

Mr. **Hoffman**. I am here just to speak about the workability of the waste-end tax, and I am going to pass on this question.

Mr. **Fortuna**. It is fair to observe that a good many of the rates reflect the need to generate revenue as much as the need to align the potential harm of a given feedstock with a higher tax rate. We don't suggest or advocate a specific figure for taxation of different chemicals.

As Mr. Thomas observed, there was a very close correlation between the substances they found at Superfund sites and the materials that are being taxed. We have advocated expansion of the feedstock on the basis of those materials found at Superfund sites which are not taxed. We will be happy to get back to the committee with an answer.

Mr. **Holmer**. We feel rather strongly that the need to raise funds is there and that the tax on those who are actually putting waste into the hazardous wastesites makes so much sense to us as a way of broadening this and that the problem of devising an adequate tax system should be worked. The complications of tax on hazardous waste disposal have been pointed out. We feel that a tax on hazardous waste disposed of on a dry-weight basis is workable. A tax system can be devised. You are talking about only 4,000 or so permanent disposers and that should certainly fall within the capabilities of the IRS to devise a workable system.

Mr. **Gephardt**. If you went to a dry-weight tax and we applied it across the board, wouldn't you shift the distribution of taxes to some industries that have greater concentrations of dry weight?

Mr. **Holmer**. Our best guess is that overall you would see the chemical industry paying roughly 50 percent of that total bill for waste disposal on a dry-weight basis. You would see the other 50 percent divided across a rather broad suite of industries with industries like the electronics industry, the automobile industry, the primary metals industry, the paper industry, and others, each taking some percent of this but probably a maximum of 10 percent by any one industry.

Mr. **Gephardt**. So you would go to less emphasis on the tax on the petrochemical industry and you would ask for more tax on a broader basis either through an end-use tax or just a broader tax on corporate America generally?

Mr. **Holmer**. We would advocate that we would get that broadened tax by means of the dry-weight tax on disposal at the sites and that we would—at the current we would add that to the existing feedstock tax which we feel is as high as this industry can now stand.

Mr. **Gephardt**. Thank you very much.

Mr. **Gibbons**. I thank all the members of the panel for a very interesting and very informative testimony.

Our next panel of witnesses are the National Association of Recycling Industries, the American Petroleum Institute, the Institute of Chemical Waste Management, the Energy Recovery and Conservation Association, and the National Association of Solvent Recyclers.

Please come forward. I am just going to take you in the order in which you are listed here. Mr. Merrigan? I remember your distinguished services to the Senate. Glad to see you again.

STATEMENT OF EDWARD L. MERRIGAN, COUNSEL, NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.

Mr. **Merrigan**. Thank you very much, Mr. Chairman.

The National Association of Recycling Industries is a trade association for the Nation's metals, paper, textile, and rubber recycling industries.

The association's membership consists of approximately 1,200 companies located throughout the United States which are engaged principally in the industrial recycling of metals and paper recovered from solid waste for reuse as valuable raw materials and resources.

The purpose of our appearance with reference to H.R. 5640 is to demonstrate why it is vitally important to metal recycling—and we think plainly in the national interest—for Congress to exclude recycled metals from one of the two taxes prescribed by this bill, to wit, the environmental sales tax on chemicals.

In this connection, H.R. 5640 again proposes to apply the chemical sales tax to some of the most basic metals—aluminum, lead, and zinc. In 1980, when the original Superfund legislation similarly proposed to apply the chemical sales tax to such basic metals, an amendment was included which authorized and directed the Secretary of the Treasury to exempt recycled metals. That exemption provision was dropped only when the basic metals were also finally excluded from the chemical sales tax provisions of the legislation.

This year, although the House Committee on Energy and Commerce did not adopt any amendments to the tax sections for inclusion in the legislation itself, the committee nevertheless did unanimously approve a recommended amendment dealing with the exemption of recycled metals from the chemical tax provisions of the bill.

Briefly, these are the reasons why it is now essential for the Ways and Means Committee to include an amendment in the tax sections of H.R. 5640 itself which exempts recycled metals from the chemical tax:

First of all, Congress has repeatedly recognized that industrial recycling of valuable raw materials from the solid waste stream is the most efficient, environmentally acceptable method of reducing both solid waste disposal and hazardous waste cleanup problems and costs. Congress has also found that recycling of scarce metals from solid waste operates to conserve this Nation's virgin resources and energy supplies; and that it reduces the U.S. dangerous reliance on foreign metal resources, and thereby alleviates the growing deficit in our balance of payments with other nations.

Second, as indicated by its name, the Superfund chemical tax was originally devised to tax toxic chemicals which have been found to pollute the environment as hazardous waste. Basic metals, such as aluminum, nickel, and zinc, are not chemicals and normally they are not hazardous waste. However, assuming for the sake of discussion that such basic metals are found in hazardous waste, clearly metal recyclers eliminate both: First, environmental pollution, and second, hazardous waste cleanup costs by recycling those metals out of the solid waste stream.

Consequently, metal recyclers eliminate and reduce hazardous waste cleanup costs—which the Superfund chemical tax is designed to defray—and therefore it would be plainly self-defeating and counterproductive for Congress to tax this beneficial recycling.

Third, imposition of the Superfund chemical tax on both virgin and recycled basic metals would amount to double taxation in that aluminum, for example, taxed in virgin form, would be retaxed when it is recycled out of solid waste.

Fourth, Congress has provided other exemptions from the Superfund chemical tax. For example, there is a fertilizer exemption and there is an exemption for substances derived from coal. Clearly, for the reasons suggested above, there are at least equally valid, compelling reasons to exempt recycled metals.

Fifth, H.R. 5640 contains two separate tax provisions: it imposes a chemical tax on the sale of chemicals; and it imposes a waste end tax on the disposal of hazardous substances into the environment.

The national recycling industry had steadfastly maintained that whoever disposes of hazardous waste into the environment should be taxed to pay the cleanup costs. Thus, under H.R. 5640, metal recyclers are subject to the waste end tax if, in any instance, hazardous waste is released into the environment in the course of a recycling operation.

However, H.R. 5640 exempts metal recyclers' competitors in the virgin metal mining industry from payment of the waste end tax. This creates a competitive imbalance which can be rectified, to a degree at least, if recycled metals are exempted from the chemical sales tax.

Finally, exemption of recycled metals from H.R. 5640's chemical sales tax would not significantly reduce Superfund revenues. As indicated previously, metal recyclers actually eliminate or reduce cleanup costs generally by recycling metal waste out of the solid waste stream. But, assuming the chemical sales tax proposed by H.R. 5640 were levied on all tonnages of aluminum, lead, zinc, and nickel currently recycled in the United States, Superfund revenues would be increased by less than $15 million per year. Consequently, while it is truly essential to both metal recycling and the several national interests served by metal recycling not to impose further Federal tax burdens and inequities on such recycling, a metal recycling exemption would not have a serious, adverse impact on the Superfund.

In conclusion, therefore, the National Association of Recycling Industries, Inc., and its members throughout the United States urge this committee to adopt an amendment to H.R. 5640 such as the one we now propose which would exempt recycled metals from the Superfund sales tax.

Thank you, Mr. Chairman.

[The prepared statement follows:]

Statement of Edward L. Merrigan, Counsel, National Association of Recycling Industries, Inc.

My name is Edward L. Merrigan. I appear before this Committee today in my capacity as Counsel to the National Association of Recycling Industries, Inc. (NARI), the trade association for the nation's metals, paper, textile and rubber recycling industries.

The Association's membership consists of approximately 1,200 companies located throughout the United States which are engaged principally in the industrial recycling of metals and paper recovered from solid waste for reuse as valuable raw materials and resources.

The purpose of our appearance with reference to H.R. 5640 is to demonstrate why it is vitally important to metal recycling—and plainly in the national interest—for Congress to exclude recycled metals from one of the two taxes prescribed by this bill, to wit the environmental sales tax on chemicals.

In this connection, H.R. 5640 again proposes to apply the chemical sales tax to some of the most basic metals—aluminum, lead and zinc. In 1980, when the original Superfund legislation similarly proposed to apply the chemical sales tax to such basic metals, an amendment was included which authorized and directed the Secretary of the Treasury to exempt recycled metals. That exemption provision was dropped only when the basic metals were also finally excluded from the chemical sales tax provisions of the legislation.

This year, although the House Committee on Energy and Commerce (which has original jurisdiction over H.R. 5640) did not adopt any amendments to the tax sections for inclusion in the legislation itself, the Committee nevertheless did unanimously approve a "recommended amendment" dealing with the exemption of recycled metals from the chemical tax provisions of the bill.

These are the reasons why it is now essential for the Ways and means Committee to include an amendment in the tax section of H.R. 5640 itself which exempts recycled metals from the chemical tax:

1. Congress has repeatedly recognized that industrial recycling of valuable raw materials from the solid waste stream is the most efficient, environmentally acceptable method of reducing both solid waste disposal and hazardous waste cleanup problems and costs. Congress has also found that recylcing of scarce metals from solid waste operates to conserve this nation's virgin resources and energy supplies; and that it reduces the United States' dangerous reliance on foriegn metal resources, and thereby alleviates the growing deficit in our balance of payments with other nations.[1]

Accordingly, the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, specifically directs various officials and agencies of the Federal Government to identify and remove, wherever possible, federally-created economic barriers to maximum resource recovery and recyling, and to provide effective economic incentives for the marketing and sales of those materials.[2]

2. As indicated by its name, the Superfund chemical tax was originally devised to tax toxic chemicals which have been found to pollute the environment as hazardous waste. Basic metals, such as aluminum, nickel and zinc, are not chemicals and normally they are not hazardous waste. However, assuming for the sake of discussion that such basic metals are found in hazardous waste, clearly metal recyclers eliminate both (a) environmental pollution and (b) hazardous waste cleanup costs by recycling those metals out of the solid waste stream.

Consequently, metal recyclers eliminate and reduce hazardous waste cleanup costs—which the Superfund chemical tax is designed to defray—and therefore it would be plainly selfdefeating and counterproductive for Congress to tax this beneficial recycling.

3. Moreover, imposition of the Superfund chemical tax on both virgin and recycled basic metals would amount to double taxation in that aluminum, for example, taxed in virgin form, would be retaxed when it is recycled out of solid waste.

4. Congress has provided other exemptions from the Superfund chemical tax in past legislation, and H.R. 5640 now proposes to extend some of those other exemptions. For example, there is a fertilizer exemption and there is an exemption for "substances derived from coal". Clearly, for the reasons suggested above, there are at least equally valid, compelling reasons to exempt recycled metals.

---

[1] See § 1002(c), Solid Waste Disposal Act, as amended by Resource, Conservation and Recovery Act of 1976 (42 U.S.C. 6901(c)).

[2] *Id.*, at §§ 5001-5006 (42 U.S.C. 6952-56); § 6002 (42 U.S.C. 6962).

5. H.R. 5640 contains two separate tax provisions: it imposes a chemical tax on the sale of chemicals; and it imposes a waste-end tax on the disposal of hazardous substances into the environment.

The environmentally-oriented national recycling industry had steadfastly maintained that whoever disposes a hazardous waste into the environment should be taxed to pay the cleanup costs. Thus, under H.R. 5640, metal recyclers are subject to the waste-end tax if, in any instance, hazardous waste is released into the environment in the course of a recycling operation.

However, H.R. 5640 (§ 4682(3)) exempts metal recyclers' competitors in the virgin metal mining industry from payment of the waste-end tax. This creates a competitive imbalance which can be rectified, to a degree at least, if recycled metals are exempted from the chemical sales tax.

6. Indeed, the exemption provided for virgin metal producers in § 4682(3) is not the only discriminatory, economic disincentive to maximum metal recycling contained in the federal tax and environmental laws. In this regard, the Internal Revenue Code provides virgin metal producers significant tax benefits in the form of (a) depletion allowances and (b) capital gains treatment of profits on virgin ores. Simultaneously, the mining industry has been and still is, substantially exempt from hazardous waste regulation under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

Consequently, exemption of recycled metals from the Superfund chemical sales tax would operate, to a degree at least, to equalize this longstanding competitive imbalance. In this regard, it should be noted that the only tax incentive ever provided by Congress to the national recycling industry—the recycling energy tax credit—expired at the end of 1982, and because of the mushrooming federal deficit, has not been renewed.

7. Finally, exemption of recycled metals from H.R. 5640's chemical sales tax would not significantly reduce Superfund revenues. As indicated previously, metal recyclers actually eliminate or reduce cleanup costs generally by recycling metal waste out of the sold waste stream. But, assuming the chemical sales tax proposed by H.R. 5640 were levied on all tonnages of aluminum, lead, zinc and nickel currently recycled in the United States, Superfund revenues would be increased by less than $15 million per year. Thus, while it is truly essential to both metal recycling and the several national interests served by metal recycling not to impose further federal tax burdens and inequities on such recycling, a metal recycling exemption would not have a serious, adverse impact on the Superfund.

In conclusion, therefore, the National Association of Recycling Industries Inc. and its members throughout the United States urge this Committee to adopt an amendment to H.R. 5640 such as the one we now propose which would exempt recycled metals from the Superfund sales tax.

PROPOSED AMENDMENT

Recycled metal.—Section 4662(b) of the Internal Revenue Code is amended by inserting the following at the end of that subsection:

"(5) *Recycled metal.*—For purposes of this subchapter.

"(A) *In general.*—Except as provided in subparagraph (B), the term "taxable chemical" and the nonferrous metals listed in the table in Section 4661(b) shall not include any recyclable metal diverted or recovered from solid waste for reuse, or any recycled metal produced or derived therefrom.

"(B) *Exception.*—Subparagraph (A) shall not apply to any recycled metal sold by a manufacturer, producer, or importer if an action or proceeding under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or under section 7003 of the Solid Waste Disposal Act has been brought against such manufacturer, producer, or importer and such manufacturer, producer, or importer has failed or refused to comply with an order or judgment issued in such action or proceeding.

"(C) *Definitions.*—For purposes of this paragraph, the term—

"(i) 'Solid Waste' shall have the meaning provided by Section 1004 of the Solid Waste Disposal Act, as amended; and the term—

"(ii) 'Recyclable Metal' means aluminum, chromium, cobalt, lead, nickel, zinc, and any other nonferrous metal contained in scrap or other materials diverted or recovered from solid waste for reuse; while 'recycled metal' means any such metal produced or derived from such recyclable metal. Such terms do not include any chemical or compound such as oxide or sulfate, or any mining waste."

Mr. GIBBONS. All right. Mr. Tell, I have been waiting for years to hear you. I have heard the William Tell overture a lot of times. Are you going to give us an overture today?

STATEMENT OF WILLIAM K. TELL, JR., SENIOR VICE PRESIDENT, TEXACO, INC., ON BEHALF OF THE AMERICAN PETROLEUM INSTITUTE

Mr. TELL. Thank you, Mr. Chairman.

My name is William Tell. I would be delighted to dedicate all the royalties that I receive from the overture to solve this problem. Unfortunately, I made a miniscule contribution.

Mr. Chairman, I am appearing on behalf of the American Petroleum Institute whose members include 235 petroleum companies and some 7,000 individuals who are engaged in all aspects of the petroleum industry's operations. We do not oppose the reauthorization of the Superfund. However, because there is so much relevant and vital information not currently available, if the authorization action is to occur at this time, we would recommend that it be at current levels with adjustments made prospectively when the critical information becomes available later this year.

I would like to comment on what I think are three or four of the main issue areas that have been developed in the testimony today because we are dealing with some very, very complex matters that have significant economic and trade implications. We are on a forced march and the country really can't afford for us to make a serious mistake in business judgment.

We have the issue of what should be the level of the progam or the fund over the next 5 years. The EPA has said that it can spend $5 billion efficiently and effectively with its expanded programs. It is estimated that H.R. 5640 would involve expenditures of $13.5 billion. Your committee report indicates that the committee's request for $9.5 billion does not include estimates with respect to the underground tank problem. We have heard today that there are 3 million of those tanks and we don't know how much of an additional burden they will put on the fund. That is important information that hopefully will be forthcoming.

EPA is presently collecting data on that subject. To include the tanks in the Superfund Program would constitute a major expansion of the program. We have been advised that it also carries with it a great risk of diluting the accelerated effort that EPA is devoting to the the main problem of these large sites. That is a problem area.

Whatever level of funding is programmed and funding the committee decides to accept, I think it has to be recognized that it will carry with it a very large toll for the succeeding 5 years and what we have are two major industries, petroleum and chemical, two mature industries, that employ thousands of people whose margins are under pressure who compete in international markets faced with the prospect of meeting a billion dollars of additional tax for a program whose benefits extend very widely. I think there are serious questions as to whether or not as a matter of equity or efficiency it is appropriate to single out these two industries and accept the inevitable economic penalties that will result.

There are questions as to what is the appropriate public sector contribution to the funding. The committee bill is reducing rather than increasing the funding contribution by the States and yet, as you noted, Mr. Chairman, the States had it within their power to deal to some extent with the problem over the years.

Property values in the States will be enhanced as presumably will tax revenues when these cleanup projects are completed. Furthermore, in many States their financial and budget balances are in stronger positions than the Federal Government. I hope the committee will ask itself, "Have we struck a fair and equitable balance in this respect."

Clearly, there ought to be incentives under this program for those parties who were responsible for creating this situation of abandoned sites in the first instance to do more. EPA has estimated that perhaps as much as 40 percent of the cleanup costs ultimately could be imposed on these individuals. I suggest, sir, that if we start out at accelerated tax and funding levels, that will very definitely remove the incentives for going after the private parties who are responsible for this situation and who ought to bear some part of the burden. That is the question that must be examined.

There are many other large costs that grow out of this legislation. H.R. 5640 would put a crushing load on the Federal judiciary. I have seen no estimates of what the cost will be to increase the Federal judiciary to accommodate the claims it will bring. The Federal Government will undoubtedly be the subject of large judgments which will require additional general revenues. We have not seen estimates of that potential cost. The Committee on Energy and Commerce has suggested that perhaps the Federal Government could be exempted from judgment. I respectfully submit I don't think that will work. One individual who has been injured as a result of a private party receives a very generous judgment, another individual, perhaps injured to a more serious extent attributable to actions by Government, is turned down with zero. That politically is unacceptable over time. The Federal Government will be confronted with very sustantial judgments if this legislation is passed.

One of our concerns is that a quick rush to funding is the train that will pull with it all these ancillary provisions that have surfaced within the last 60 days. There has not been an opportunity to analyze what we are setting the country up for. I hope we can defer funding since the fund balance is more than adequate to do the job for the next 6 months. The only serious argument I heard to rush forward now is that EPA wouldn't gearup. I suggest that if there is additional gearing up to be done—and the EPA has suggested that they have geared as far as they prudently can—let's put the additional gearup cost in at this time, but let's please reserve locking in these long-term funding formulas until we have more information. If you act now on a problem that doesn't demand this kind of precipitous action, you carry with it the very great risk of seriously injuring two very important industries in the United States.

Thank you.

Mr. GIBBONS. I thank you for an excellent statement and commend you.

[The prepared statement follows:]

STATEMENT OF WILLIAM K. TELL, JR., SENIOR VICE PRESIDENT, TEXACO, INC., ON BEHALF OF THE AMERICAN PETROLEUM INSTITUTE

My name is William K. Tell, Jr. I am Senior Vice President of Texaco, Incorporated. It is on behalf of the American Petroleum Institute (API), that I am testifying today. API represents 235 petroleum companies and approximately 7,000 individual members who are engaged in all aspects of petroleum exploration, production, transportation, refining and marketing. API appreciates this opportunity to present its views on HR 5640 now under consideration by the Ways and Means Committee.

My testimony addresses four aspects of HR 5640: first, Superfund reauthorization; second, the imposition of the chemical tax on certain components of gasoline; third, the tax on hazardous substances; and fourth, repeal of the Post-Closure Liability Fund. We are also submitting for the record a statement of API's concerns regarding other parts of HR 5640.

I. REAUTHORIZATION OF CERCLA (SUPERFUND)

The API and its member companies do not oppose the reauthorization of CERCLA (Superfund). We believe that the timely and cost-effective cleanup of abandoned hazardous waste sites is an issue of major national concern and deserves government action.

We are concerned, however, that the present effort at reauthorization—a full year before the current funding expires—is premature. More information is needed on both total and annual funding needs as well as the effects of the method or methods of funding. Reauthorization now, before this basic information is in hand, could lead to further inefficiencies in use of the fund and further inequities in application of the tax.

Important information will soon become available. Section 301(a) of CERCLA requires that a comprehensive report be completed by December 11, 1984, detailing, among other things, experience with the implementation of CERCLA, the effectiveness of the Response Fund, recoveries from responsible parties, and future funding needs. The President has directed the Administrator of EPA to complete the mandated report along with a special administration proposal for the extension of CERCLA authorities. EPA Administrator William D. Ruckelshaus indicated in his testimony before the House Subcommittee on Commerce, Transportation, and Tourism, on March 15, 1984, that the report would be completed by the December 11, 1984 deadline.

Additional information is also becoming available as a result of the EPA's accelerated enforcement and clean-up activities that have occurred during the past year. Mr. Ruckelshaus pointed our in his March 15 testimony that, ". . . much of the experience we have acquired under the Superfund program has been derived from the last nine months' efforts, and further experience with the present rate of program activity, in connection with the Section 301(a) studies, should give us a firmer basis for a sound reauthorization proposal."

Because of the time afforded by the current authorization, the need for more accurate assessment, and the additional information that will become available later this year, it is our recommendation that no legislative action be taken now to extend or expand the funding. The original Superfund was created in an atmosphere of hurry resulting in many unnecessary administrative problems which even today have not all been resolved. This mistake should not be repeated. There is no need for precipitous action. There is time to act judiciously before the present authorization expires in September, 1985.

In his March 15, 1984, testimony, Mr. Ruckelshaus expressed his concerns about the dangers posed by premature reauthorization. He said, "I am troubled by the possibility that proceeding to authorize in the absence of the studies and further program experience, particularly when reauthorization is not necessary, could result in unwise legislative decisions which a little more time, experience, and analysis could avoid."

Funding

Prudent management of the program requires a careful assessment of both the total funds necessary and EPA's annual funding requirements. Congress should not impose taxes at a rate beyond EPA's ability to effectively use them.

At present, estimates of the total funds necessary are uncertain because both the total cleanup cost and the portion of that total cost that must be met by federal taxes are unclear. The total cleanup cost will depend in large measure on the number of sites that may require federal funding. But, at present, there are large differences among various estimates of the number of sites that will require action by the federal government. Furthermore, the cost per site may change as the cleanup program proceeds. Because the most significant sites are being addressed first, it can reasonably be anticipated that future cleanup costs will be *less* than current experience now suggests.

Funding needs will also be greatly affected by the portion of cleanup costs that will be borne by responsible parties. The EPA has recently developed guidelines for negotiating with potentially responsible parties which would require them to agree to reimburse a minimum of 80 percent of costs. Commonly used estimates of cost recovery from potentially responsible parties have been substantially below this level. Funding needs estimates would be lower if cost recovery estimates were based more closely on the EPA guidelines.

Additional factors that will affect total funding needs are: cleanup standards, interest earned on cash balances, and operation and maintenance costs. Other costs may also be subject to recovery.

Choosing to increase the pace of cleanup, and thus to increase annual funding needs, before firm information is in hand, increases the risk that EPA would be unable to allocate, employ, and monitor the funds efficiently. EPA Administrator Ruckelshaus in his recent Congressional testimony warned that "additional infusions" of funding beyond EPA's capabilities "could have the paradoxical effect of retarding our activities, not speeding them up." Mr. Ruckelshaus concluded that "additional infusions" of money at too great a rate had the potential for "building in waste".

CERCLA tax system

Any changes in the sources of revenue for the Hazardous Substance Response Trust Fund should be based on economic efficiency, demonstrated need, and improved funding equity derived from a relationship between the problem and its cause.

The current CERCLA tax system is neither economically efficient nor equitable. Furthermore, the proposed changes in the tax system found in H.R. 5640 would make the system less equitable. This underscores the need to wait for more information to become available before approving reauthorization.

The present CERCLA tax system taxes current production to pay for past waste disposal actions. CERCLA is not intended to address present and future waste disposal practices. That task is undertaken through the Resource Recovery and Conservation Act (RCRA). The taxation of current operations to pay for past problems is not economically efficient. Imposing the financial burden of cleaning up all hazardous waste generated in the past on such a limited group of taxpayers exacerbates the economic inefficiency. This approach is not economically efficient because the amount of the tax paid by producers, users, and disposers is not related to the amount of waste that needs cleanup.

A more efficient, and also a more equitable, tax system would broaden the taxbase and link the tax burden with those who contributed to or benefitted from past disposal practices. EPA has estimated that petroleum refineries generate less than 5 percent of the hazardous waste in the nation while, according to IRS statistics, crude oil accounts for 15 percent of the taxes raised under CERCLA. The proposed increase in the petroleum tax would add to—not reduce—this imbalance. H.R. 5640 proposes to increase the petroleum tax almost sixfold, from 0.79 cent per barrel to 4.5 cents per barrel. Coupled with the proposed Sec. 4661 tax on benzene, toluene, xylene in gasoline, the petroleum industry's annual contribution to Superfund would increase sixteenfold while the total fund would increase only fivefold, according to an Energy and Commerce staff estimate.

The Section 301(a) studies due in December 1984 are to include an analysis of the feasibility and desirability of different tax systems for financing response activities. Delaying reauthorization until this analysis is completed would be prudent and may help establish a better basis for the tax.

II. TAX ON BENZENE, TOLUENE AND XYLENE "MIXED INTO GASOLINE"

H.R. 5640 would impose the chemical tax on certain components of gasoline. API opposes this approach.[1]

---

[1] Although it is not clear how other octane enhancers would be treated under H.R. 5640, API opposes the taxation of *any* of the enumerated chemicals used in the manufacture of motor fuels.

The proposed tax in H.R. 5640 threatens to: (1) severely distort the marketplace because of its potentially uneven effects on U.S. refiners; (2) displace U.S.-refined gasoline with imported gasoline; (3) impose greater administrative and compliance costs; and (4) embroil refiners and the IRS in protracted disagreements and litigation over interpretation and application of the ambiguous tax provisions.

Potential for severe market distortions

The inclusion in HR 5640 of tonnage taxes on benzene, toluene, and xylene "mixed into gasoline" is ambiguous. Depending on the interpretation of the phrase "mixed into gasoline", there could be serious distortions in the marketplace because the tax would bear far more heavily on some refiners than on other refiners.

Benzene, xylene, and, especially, toluene are necessary components for enhancing the octane rating of high quality unleaded gasoline. Crude oil coming out of the ground normally contains some benzene, toluene and xylene. The quantities of these three chemicals normally change during the refining process. Thus, some refineries may have sufficient amounts of benzene, toluene and xylene present in refinery streams without actively "mixing in" additional amounts of the pure chemicals. But, there are other refiners that do not produce sufficient quantities of these chemicals in their normal operations. They may find it necessary to acquire—and "mix in"—some of them for the blending process to produce gasolines of appropriate octane specifications. These refiners would be adversely affected by the tax provisions of H.R. 5640 and could be seriously disadvantaged compared to other refiners.

This uneven application of the tax would occur at a time when intense marketplace competition has already resulted in generally thin margins for petroleum refiners and has led surviving refiners to shut down less efficient facilities. The DOE has reported that 82 refineries were shut down between January 1, 1981 and January 1, 1983. The substantial decline in the number of U.S. refiners, refineries, and domestic refining capacity is displayed in Table 1.

TABLE I [1]

	Jan. 1, 1981	Jan. 1, 1982	Jan. 1, 1983	Percent reduction 1981-83
U.S. refiners	189	175	142	(25)
Operating refineries	315	254	233	(26)
Operating refining capacity (kBD)	18,051	16,104	14,961	(17)

[1] Source: Petroleum Supply Annual 1981 & 1982, Energy Data Report, Energy Information Agency

It is estimated that the proposed legislation could substantially increase the average refiner's cost of unleaded gasoline. Any increase that applies unevenly could—in light of the current market environment—force more refiners to leave the marketplace completely.

Greater Gasoline Imports

The tax as presently proposed would cause domestically manufactured motor gasoline to suffer a cost disadvantage versus imports. That would accelerate the ongoing trend of greater imports of gasoline, with long range adverse implications for U.S. national security. There would be additional loss of U.S. refineries, refining capacity and jobs.

Recent growth in gasoline imports has been significant, with volumes increasing over 50 percent since 1981. This import growth has occurred at the same time that substantial U.S. refining capacity has been idled and the remaining capacity underutilized.

Further. U.S. refiners will be facing new and intensified competition from foreign sources by 1985 as refinery upgrading projects and new grassroots refineries start up. In an article addressing the impact of foreign competition on U.S. refiners, Business Week (January 9, 1984, p. 36) reported:

"The (import) flood shows no signs of abating. By 1985, a panoply of Middle Eastern refineries—among them three Saudi Arabian refineries capable of handling 800,000 bbl. per day—will be going into operation. These projects could raise product exports from the Persian Gulf by 1.3 million bbl. per day, or 130%. Other OPEC members will be bringing on another 500,000 bbl. per day of capacity by 1987, worsening the plight of the hard-pressed U.S. refineries."

Increased administrative and compliance costs

Administrative and compliance problems created by the proposed tax would be very difficult, complex and costly to resolve. Depending on the interpretation of the phrase "mixed into gasoline," complex and expensive testing procedures would have to be newly instituted at all U.S. refineries and the I.R.S. simply to calculate tax liabilities. Those procedures would not help refine more gasoline.

Finished motor gasoline is a blend (mixture) of various refinery streams, each containing benzene, toluene or xylene. It must meet numerous rigorous product quality standards before it is shipped from a refinery. These standards, however, do not provide quantity measurements of benzene, toluene or xylene that would be needeld under the tax.

Moreover, only limited data are available to make estimates of these quantities. Even with the best engineering tools available, any particular estimate in a given refinery would probably be accurate to no more than plus or minus 10 percent. Differences in methololologies, and estimates made by different refineries and by different companies, would likely cause these variations to be considerably greater.

Quantity estimates would vary because the refining of crude oil into finished petroleum products is a continuous and highly dynamic operation. The quantity of listed chemicals may change substantially from day to day and even from hour to hour, depending on the types of crudes being run, operating conditions in various refinery process units, and the product slate being produced.

Differences in operational procedures among refiners would cause significant differences in tax liabilities. For example, the benzene, toluene and xylene content of the naphtha feed to a catalytic reformer typically runs about 10 percent and above. The output from typical catalytic reformers contains benzene, toluene and xylene in concentrations ranging from 45 percent to 60 percent. The range in concentrations among refineries, and even within the same refinery over time, would require extensive—and costly—measurement steps including administrative and testing costs incurred by the IRS to verify the amounts reported.

Potential for extensive litigation

Ambiguous tax provisions and complex problems of measurement and interpretation are a perfect breeding ground for numerous disagreements between refiners and the IRS. Protracted, voluminous litigation would be the inevitable result.

The tax conflicts with other government objectives

Finally, imposing a tax on the listed chemicals used in the manufacture of motor fuels would become effective at the precise moment that more of these very same chemicals will be needed to provide additional amounts of quality, unleaded gasoline. Current gasoline demand is about 60 percent unleaded and 40 percent leaded. The Environmental Protection Agency has announced that in the next few weeks it will issue a proposed rule to further reduce—and ultimately ban—the use of lead in gasoline, a move which will force a commensurate increase in the use of benzene, toluene and xylene to enhance octane ratings. In other words, the government would be forcing increased manufacture of unleaded gasoline while at the same time imposing an additional cost on its manufacture.

III. TAX ON HAZARDOUS SUBSTANCES

API believes that the provisions of H.R. 5640, regarding taxing the disposal of hazardous substances, would create an inconsistent and extremely complicated tax structure.

First, the provisions of H.R. 5640 would lead to uneven application of federal taxes, depending on actions by the states. Title V of H.R. 5640 would place a tax on hazardous substances (*not* hazardous wastes) "if such disposal is required to be carried out in compliance with subtitle C of the Solid Waste Disposal Act." Many states have subtitle C authority and have designated substances which must be "disposed of in compliance with subtitle C." These substances are in addition to hazardous wastes designated by EPA under RCRA. A hazardous substance may thus be subjected to federal tax because of a decision of one state, but the identical substance may not be taxed based on a decision of another state. This would create an extremely complicated tax accounting problem and could affect competition due to uneven application of taxes. Furthermore, delegation of authority to tax to the EPA or the states may raise a constitutional question, as well.

Second, H.R. 5640 would arbitrarily base a waste-end tax on a system designed for an entirely different purpose, thus further complicating an already difficult problem. H.R. 5640 would link tax rates with reportable quantities. But reportable quantities are merely notification triggers alerting the National Response Center of the existence of a release that might necessitate a governmental response. They are not, nor has EPA in its recent proposed rule-making attempted to make them, reliable indicators of the hazard posed by the release of a substance. The establishment of a one pound reportable quantity (RQ) for some substances was arbitrary and was a temporary measure until the EPA developed the necessary information to make a more reasonable determination. The one pound RQ requirements in many cases have noting to do with their hazardous nature and should not form a basis for tripling the tax rate. API is concerned about this arbitrary linkage in H.R. 5640.

API is also concerned that HR 5640's handling of mixtures will result in inequities. API believes that any taxes or fees should be based on dry weight of the waste, instead of on total weight as defined in HR 5640. Dry weight is the more accurate quantity measure of the hazardous waste that is initially deposited in a disposal site. Indeed, Congress itself recognized this in establishing the Post-Closure Liability Trust Fund by providing that the tax be on a dry-weight basis.

Taxation based on the total weight of the waste regardless of the quantity of hazardous substances, is inequitable and bears too heavily on aqueous wastes and soils. For example, entire wastewater outflows could be subject to taxes because of the presence of a very small quantity of a hazardous substance.

If a waste-end tax were imposed, API believes that the legislation should provide exemptions for treatment methods that present little potential for harm to the environment. In particular, API believes landfarming should not be taxed at the same rate as landfilling. Although landfarming is technically defined as disposal, landfarming is a treatment method and is a superior means of reducing the amount and toxicity of waste prior to disposal (biodegradation). Its practice should therefore be encouraged. This is recognized in the legislative history of CERCLA (see, e.g. Congressional Record S. 14968, November 24, 1980) and the Post-Closure Liability Trust Fund tax system which taxes only those wastes which will remain on site. The State of California currently provides for a lower rate in the case of hazardous wastes handled by injection wells and landfarming (California Hazardous Substances Account Act).

API believes that a waste-end tax—if chosen by Congress—should incorporate several other important features:

A waste end tax should be a replacement for, not in addition to, the current petroleum and feedstock taxes.

Uses of revenue should be limited to emergency response and orphan dump site cleanup. Personal indemnification should not be included in any CERCLA program.

Taxes should be levied at the point of waste disposal rather than at the point of waste generation or storage.

Reclamation, reuse, and recycling should be exempt from taxation to encourage these practices.

The tax should be levied only on federal RCRA hazardous wastes in effect when it was enacted. State wastes, off-specification products, by-products and process residuals should not be taxed.

The tax rate should be carefully constructed to minimize unintended adverse side effects (e.g., illegal disposal).

Special consideration should be given to substances removed from CERCLA sites so as not to frustrate efforts to reach settlement agreements.

There should be an absolute limit on the amount of money to be raised by that tax.

IV. REPEAL OF THE POST-CLOSURE LIABILITY FUND

HR 5640 would repeal the Post-Closure liability Trust Fund provision of CERCLA. API opposes this. Repeal would discourage cleanup because it would open up unlimited liability for an indefinite future to any party entering into a cleanup agreement. A private party—no matter how small its involvement—could not afford to accept that risk and would have little choice but to avoid entering into any cleanup agreement. Thus, voluntary cleanup efforts would be greatly reduced and would be replaced by acrimonious legal proceedings.

Instead of repeal, continuation of the taxes now imposed to finance the Post-Closure Liability Trust Fund will assure a reliable source of funds for the Administrator to handle any clean-up problems that may occur after closure of current RCRA disposal sites. These taxes are levied on all persons who operate either onsite or offsite disposal facilities.

Repeal of the Post-Closure Liability Trust Found would create cleanup problems in the future. It is not enough to simply clean up the problems of yesterday. We must anticipate the potential problems of the future and provide necessary funds to deal with them. Repeal of the Fund fails to accomplish this.

STATEMENT OF BEHALF OF THE AMERICAN PETROLEUM INSTITUTE, PRESENTED BY JOHN J. FITZPATRICK, JR., ACCOMPANIED BY STEPHEN E. WILLIAMS, BEFORE THE SUBCOMMITTEE ON WATER RESOURCES OF THE HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE ON SUPERFUND REAUTHORIZATION, WASHINGTON, DC, JUNE 13, 1984

Thank you, Mr. Chairman. My name is John J. Fitzpatrick, Jr., Washington Counsel for Gulf Oil Corporation. With me is Stephen E. Williams, Counsel to the American Petroleum Institute. We are testifying today on behalf of the American Petroleum Institute. We are testifying today on behalf of the American Petroleum Institute (API). We appreciate this opportunity to present our views on aspects of the CERCLA legislation. We would like to comment in particular on provisions in H.R. 5640, including the proposed federal cause of action.

We also have a more extensive written statement which we would like to submit for the record, with your permission.

We are not opposed to reauthorization of CERCLA. However, we see no compelling argument for passage of reauthorization this year. Indeed, there are sound arguments to the contrary. First, we note that tax authority in the existing law continues through Fiscal Year 1986, and the proposed taxes and reauthorization bills do not become operative until thereafter.

Second, we do not believe Congress should deviate from the orderly reauthorization process which it wisely included in CERCLA when the statute was enacted in 1980. This orderly process called for the creation of three special information generating programs:

(1) The Section 301(e) study of legal remedies for damages from hazardous waste—a study which has been completed.

(2) The Section 104(i) program to document the possible relationship between the exposure to toxic substances and disease—a program which is now being implemented.

(3) The Section 301(a) report to assess the current operation and future needs of the CERCLA program, including recommendations for legislative changes—a report which must be completed before the end of this year.

In addition, we have a number of specific concerns regarding the impact of H.R. 5640 on petroleum industry operations, of which I would like to highlight the following:

Common sense and fairness demand that those responsible for harm pay for the resultant damage. Our industry already pays a disproportionate share of the Fund relative to hazardous waste generation, and the inequity would be even more severe under H.R. 5640. The revenue provisions of H.R. 5640 should be based on a more equitable relationship between the problem being addressed and those who should pay. If enacted, crude oil and feedstock taxes paid by the petroleum industry would increase, in the aggregate, approximately sixteen-fold. And the "waste end" tax provisions in H.R. 5640 are based on the disposal of hazardous substances, not on hazardous wastes defined under RCRA. we believe this could result in an extraordinarily complicated tax system and frustrate the goals of the statute.

The definition of "harzardous substances" would be modified to include crude oil and petroleum products under certain circumstances. This unnecessarily increases the scope of CERCLA and potentially detracts from the cleanup of abandoned waste sites.

Cleanup to the proposed mandatory standards would, in many cases, be extraordinarily expensive and, in some cases, simply infeasible. The proposed standards have no scientific basis for the use of which they are proposed and could result in cleanup requirements with little, if any, environmental benefit.

The Environmental Protection Agency is now moving to assess the number of leaking underground storage tanks and the problems they pose. It would be better to await the completion of EPA's current data-gathering program before determining that federal legislation is needed. In any case, CERCLA is not the appropriate vehicle for handling underground leaks. The provision in the bill is seriously flawed.

H.R. 5640 would significantly expand CERCLA by extending its provisions related to hazardous substances to include pollutants and contaminants. Cost recovery, administrative orders which cannot be appealed, liability and citizen suit provisions could be applied to a wide range of operations which bear little resemblance to the problems encountered at abandoned hazardous waste sites.

API believes that the imposition of joint and several liability is too harsh at CERCLA sites. However, without quarantees of contribution and the fair apportionment of cleanup costs and damages, H.R 5640 perpetuates a serious inequity, and when coupled with other procedural barriers in the bill, will seriously deter voluntary cleanup of waste-sites.

And the citizen petition and rights of suit in H.R. 5640 are so expansive as to allow a small number of people to dictate or paralyze government decison-making.

Finally, we have a number of serious concerns with Title II of H.R. 5640, which establishes a federal cause of action for individual claims of personal injury and property damage from hazardous substances.

First, the 301(e) Study Group concluded that there are causes of action available on which to base a claim for damage in the states.[1] Moreover, they advised against a supplemental federal cause of action or federal forum.

Second, because the cause of action allows parallel but independent remedies under state and federal law, it will create difficult procedural and substantive conflicts and uncertainties for courts. This will protract, rather than expedite, litigation of hazardous substances damage cases.

Third, great uncertainty and confusion, rather than clarity, would result from the ambiguities in the Title II provisions. This needs to be given far greater analysis than is reflected in H.R. 5640. Coverage in the bill is potentially so broad, and so vague, that it makes it virtually impossible to define or predict a potential defendant's legal exposure.

Thank you, Mr. Chairman. This concludes my testimony. We will be happy to respond to questions.

INTRODUCTION

My name is John J. Fitzpatrick, Jr., Washington counsel to Gulf Oil Corporation. With me is Stephen E. Williams, counsel to the American Petroleum Institute. It is on behalf of the American Petroleum Institute (API), that we are testifying today. API represents 235 petroleum companies and approximately 6,000 individual members who are engaged in all aspects of petroleum exploration, production, transportation, refining and marketing. API appreciates this opportunity to present its views on the Superfund legislation now under consideration by the Subcommittee on Water Resources.

Most of our comments are directed at H.R. 5640, a bill which is under consideration by the Committee on Energy and Commerce and the Committee on Public Works and Transportation.

We believe that the expeditious and cost-effective cleanup of abandoned hazardous waste sites is an issue of major national concern and deserves government action. While we do not oppose the reauthorization of CERCLA, H.R. 5640 would so significantly expand the scope of CERCLA, that API cannot support the proposal, which should be abandoned in search for an equitable approach in the first session of the next Congress.

Before addressing the petroleum industry's specific concerns with H.R. 5640, it is important to first understand the far-reaching character of CERCLA. While the current focus of government activities is on abandoned hazardous waste sites, the statute deals with the release of any, broadly defined, hazardous substance. Indeed, this latter concept is strongly reinforced and broadened in H.R. 5640, perhaps to the detriment of abandoned waste site cleanup.

The impacts of CERCLA are not only related to abandoned waste sites, but apply to nearly every aspect of the manufacturing and distribution system. Virtually every industry uses substances among the approximately 2,000 being considered by EPA for establishment of reportable quantities under CERCLA. While some of our comments address waste sites, their primary focus is on the relationship of provisions of H.R. 5640 to petroleum operations.

In addition to a number of specific concerns regarding the impact of H.R. 5640 on petroleum industry operations, the industry is also concerned with the size of the Hazardous Substances Response Trust Fund and the sources of this fund. When CERCLA was passed in 1980 there were inadequate data from which to make an assessment of funding needs or an equitable determination of sources of revenue—a situation which still remains today. The petroleum industry pays a disproportionate share of the Fund relative to hazardous waste generation. The inequity would be even more severe under H.R. 5640.

---

[1] Committee Print, Senate Committee on Environment and Public Works, Injuries and Damages from Hazardous Wastes, Analysis and Improvement of Legal Remedies, #97-12, September 1982, Part I at 193. (301(e) Report).

Finally, we have a number of serious concerns with Title II of H.R. 5640, which establishes a federal cause of action for individual claims of personal injury and property damage from hazardous substances. API does not believe the need for such an approach has been established. Indeed, in 1980 when CERCLA was passed, Congress itself recognized it needed certain crucial information before taking further action. We do not believe Congress should deviate from that orderly reauthorization process. This process called for the creation of three special information-generating programs:

1. The Section 301(e) study of legal remedies—a study which has been completed.
2. The Section 104(i) program to document the possible relationship between the exposure to toxic substances and disease—a program which is now being implemented.
3. The Section 301(a) report to assess the current operation and future needs of the CERCLA program—a report which must be completed by the end of this year.

SUMMARY

It is premature to make a decision to increase the size of the Hazardous Substances Response Trust Fund. Congress should await the results of studies currently underway before acting.

The feedstock tax provision of H.R. 5640 would substantially increase taxes on products that have little relationship to the problems CERCLA is designed to address. The "waste end" tax provisions based on the disposal of hazardous substances, not on hazardous wastes defined under RCRA, could result in an extraordinarily complicated tax system and frustrate the goals of the statute. Revenue provisions should be based on a more equitable relationship between the problem being addressed and those who should pay.

The definition of "hazardous substances" is expanded to include crude oil and petroleum products. This unnecessarily increases the scope of CERCLA and potentially detracts from cleanup of abandoned waste sites.

Mandatory cleanup standards do not allow flexibility to respond to specific circumstances and will unnecessarily hinder and increase the cost of cleanup.

There has not been a demonstrated need for additional legislation to regulate the underground storage of crude oil and petroleum products.

H.R. 5640 would significantly expand CERCLA by expanding its provisions related to pollutants and contaminants. Cost recovery, administrative orders which cannot be appealed, liability and citizen suit provisions could be applied to a wide range of situations not appropriate to abandoned hazardous waste sites.

The possible extension of RCRA permitting standards to industrial plants and commercial facilities is an inappropriate application of standards designed for hazardous waste facilities. This provision establishes an extraordinary precedent in requiring RCRA standards, which are related to wastes, to be applied to facilities where hazardous substances are located.

The mandatory actions demanded in H.R. 5640 guarantee large amounts of money will be spent, but will make voluntary cleanup of waste sites more difficult and time consuming because of the unnecessary additional bureaucratic approvals needed.

Citizen petition and rights of suit are so expansive as to allow a small number of people to paralyze government decision making.

Liability provisions do not specifically allow equitable apportionment of damages.

Because the cause of action allows parallel but independent remedies under state and federal law, it will create difficult procedural and substantive conflicts and uncertainties for courts. This will protract, rather than expedite, litigation of chemical damage cases.

There are also a number of ambiguities and uncertainties in the Title II provisions.

FUNDING NEEDS

We recommend that no change be made in the size of the Hazardous Substances Response Trust Fund until there is a better understanding of the scope of the problem. API does not believe that the need to substantially increase CERCLA funding has yet been demonstrated. Studies, including the study mandated by Congress in Section 301(a) of CERCLA, need to be completed before the funding issue can be adequately assessed.

Estimates of annual funding needs are uncertain because both the total cleanup cost and the portion of that total cost that must be met by federal taxes, are unclear. It can reasonably be anticipated that because the most significant sites are being addressed first, future cleanup costs will be less than current experience would at first suggest. Furthermore, the timeframe of the cleanup effort will affect annual funding needs and will probably affect the efficiency of site cleanup.

The number of sites which may require federal funding is questionable. There are large discrepancies concerning the number of sites that will require action by the federal government, making it difficult to determine annual funding needs. Additional private party and voluntary factors that will affect total funding needs are: cleanup standards, cost recovery, interest earned on cash balances, operation and maintenance costs, and other costs that may be subject to recovery.

Annual funding needs will be greatly affected by the portion of cleanup costs that will be borne by responsible partes. The EPA has developed guidelines for negotiating with potentially responsible parties which would require agreement to reimburse a minimum of 80 percent of costs. Commonly used estimates of cost recovery are substantially below this level. This could have a major impact on the real needs of the Fund.

The more rapid the pace of cleanup, the greater the risk that EPA would be unable to allocate and monitor the funds efficiently. EPA Administrator Ruckelshaus in recent Congressional testimony warned that "additional infusions" of funding beyond EPA's capabilities "could have the paradoxical effect of retarding our activities, not speeding them up." Mr. Ruckelshaus concluded that "additional infusions" of money at too great a rate had the potential for "building in waste."

In summary, we believe that the Congress should wait for EPA's 301(a) and other year-end reports before assessing the need to change CERCLA's funding level. A reasonable decision cannot be made until the ambiguities associated with funding needs are clarified.

INCREASES IN CERCLA TAXES

Changes in the sources of revenue for the Hazardous Substance Response Trust Fund, should be based on demostrated need and the ability to improve the equity of funding based on a relationship between the problem and its cause.

H.R. 5640 proposes substantial increases in current CERCLA crude oil and feedstock taxes and new "waste-end" taxes, in addition to increases in funding from general revenues. If enacted, crude oil and feedstock taxes paid by the petroleum industry would increase, in the aggregage, by sixteen fold. Because of the ambiguities associated with the tax on disposal of hazardous substances, it is not yet possible to estimate petroleum industry payments from the so called "waste end" tax.

Common sense and fairness demand that those responsible for harm pay for the resultant damages. The current CERCLA tax system is neither economically efficient nor equitable. Taxing current production to pay for past actions is not economically efficient. It is necessary to establish a more equitable relationship between the problem society is trying to remedy and those who should bear the costs. For example, EPA has estimated that petroleum refineries generate only 3 to 5 percent of the hazardous waste in the nation [1] while, according to IRS reports, crude oil accounts for 15 percent of taxes raised under CERCLA, there is an imbalance which would be accentuated by H.R. 5640. Because there is such a tenuous connection between those on whom the levey is imposed and those who cause hazardous waste problems, the proposed increase in taxes raises a fundamental question of fairness.

The inclusion in the proposed bill of tonnage taxes on benzene, toluene and xylene when 'mixed into gasoline' is ambiguous, and depending upon interpretation, would severely distort the market for the components necessary to manufacture high quality unleaded gasoline. Crude oil coming out of the ground normally contains some benzene, toluene and xylene. Additional quantities of these three chemicals are normally formed in the refining process. Some refiners are unable to produce sufficient quantities of these chemicals. They find it necessary to acquire some of these chemicals for the blending process to produce gasoline of appropriate specifications. These refiners would be seriously disadvantaged compared to others whose crude and refining processes make such additional amounts of these chemicals unnecessary. Moreover, measurement problems would be extremely difficult, since existing quality control testing does not account for the levels of these chemicals in the product. Accurate measurement of these chemicals used in gasoline would be both an expensive and cumbersome process. These administrative problems would also be prevalent in the government's administration and enforcement of the tax.

---

[1] This percentage is expected to decrease as EPA recently increased its estimate of total hazardous waste generation.

The taxation under CERCLA of petroleum, petrochemicals and chemicals exported from this country will hinder the competitive position of U.S. companies because they compete in a world market in which foreign suppliers would not have been subject to these additional costs. Accordingly, a tax credit should be allowed for exports of these substances.

API is concerned with the elimination of the limited preemption of state tax authority provided by Section 114(c) of CERCLA. Although there is disagreement about the effect of the existing preemptive language, the deletion could encourage the proliferation of environmental tax statutes in the states.

API neither endorses nor opposes a waste end tax. However, we have serious concerns with the structure of the proposed tax in H.R. 5640.

Title V of H.R. 5640 would place a tax on hazardous substances (not hazardous wastes) "if such disposal is required to be carried out in compliance with subtitle C of the Solid Waste Disposal Act." Many states have subtitle C authority and have designated substances which must be "disposed of in compliance with subtitle C." These substances are in addition to hazardous wastes designated by EPA under RCRA. A hazardous substance may thus be subject to federal tax because of a decision of one state, but the identical substance may not be taxed based on a decision of another state. This would create an extremely complicated tax accounting problem and could effect competition by uneven application of taxes. Waste management practices could also become more complicated as those disposing of substances would have to consider unequal tax consequences in their waste management decisions.

API is concerned about the linkage of tax rates with reportable quantities. Reportable quantities are merely notification triggers alerting the National Response Center of the existence of a release that might necessitate a governmental response. They are not, nor has EPA in its recent proposed rulemaking attempted to make them, reliable indicators of the hazard posed by the release of a substance. The establishment of a one pound reportable quantity (RQ) for some substances was arbitrary and was a temporary measure until the EPA developed the necessary information to make a more reasonable determination. The one pound RQ requirements have nothing to do with their hazardous nature and do not form a basis for tripling the tax rate for substances with a one pound RQ as proposed in H.R. 5640. Arbitrarily basing a waste end tax on a system which was designed for an entirely different purpose would further complicate an already difficult problem.

The handling of mixtures in H.R. 5640 is particularly troublesome. Taxation based on the total weight of a substance being disposed of, regardless of the quantity of hazardous constituents, will result in inequities, especially considering aqueous wastes and soils. For example, entire wastewater outflows could be subject to taxes because of the presence of a very small quantity of a hazardous substance.

API believes that any taxes or fees should be based on dry weight of the waste, instead of on total weight as defined in H.R. 5640. Dry weight is the more accurate quantity measure of the disposed waste. Indeed, Congress itself recognized this in establishing the Post-Closure Liability Trust Fund by providing that the tax be on a dry-weight basis.

If a waste end tax were imposed, API believes that the legislation should provide exemptions for treatment methods that present little potential for harm to the environment. In particular, API believes landfarming should not be taxed at the same rate as landfilling. Although landfarming is technically defined as disposal, landfarming is a treatment method and is a superior means of natural disposal (biodegradation). Its practice should therefore be encouraged. This is recognized in the Post-Closure Liability Trust Fund tax system which taxes only those wastes which will remain on site, and in the legislative history of CERCLA (e.g., Congressional Record S. 14968, November 24, 1980). The State of California provides for a lower rate in the case of hazardous wastes handled by injection wells and landfarming (California Hazardous Substances Account Act).

Definition of hazardous substance to include petroleum and crude oil

Section 101(a) of H.R. 5640 would change the definition of hazardous substances to include, among other things, "any petroleum (including crude or any fraction thereof) which is released from an underground storage tank." A more thorough discussion of the petroleum exclusion has been presented to Congress in testimony before the House Committee on Commerce, Transportation and Tourism on March 1, 1984 regarding H.R. 4813. That statement questions the need for the removal of the petroleum exclusion in any form. A copy of that statement is attached.

This new definition proposed in Section 101(a) is confusing and is different from the definition of hazardous substances found in Title IV of H.R. 5640. This will result in confusion as to what should be reported. Because of the very strong penalties for failing to report, there may be a tendency to report every release regardless of risks posed. This could result in so many incidents being reported that it will be difficult to focus on those that truly require government response, thus frustrating the fundamental goals of CERCLA.

CLEANUP STANDARDS

H.R. 5640 (Section 107) would establish mandatory national cleanup standards. Cleanup to the proposed standards would, in many cases, be extraordinarily expensive and, in some cases, probably would be virtually impossible. The referenced standards were originally adopted under Federal environmental laws designed to serve purposes other than defining site cleanup standards. The standards would be insensitive to the particular environmental media or the characteristics of individual sites, such as background quality, groundwater and geology. Thus, the proposed standards have no scientific basis for the use of which they are proposed and could result in cleanup requirements that are needlessly costly and, beyond a certain point, could result in little, if any, environmental benefit.

Should society really spend large amounts of money to clean groundwater to Safe Drinking Water Act standards even if that groundwater will never be used for drinking water? API believes the question that should be asked instead is whether the proposed cleanup action would produce a tangible benefit to society. If so, we would recommend a response organized along the lines of the National Contingency Plan, which now effectively deals in site specific fashion with spills of hazardous substances.

UNDERGROUND STORAGE TANKS

Title IV of HR 5640 proposes significant additions to CERCLA regarding the regulation of underground storage tanks. While it is not clear what motivates these changes, some have suggested that these provisions may be a means to increase federal protection of groundwater by allowing CERCLA funds to be used for response to releases from underground gasoline storage and crude oil tanks.

API recommends that Congress delay action until the specific dimensions of the problem have been defined and verified. Until then, effective remedies will be difficult to prescribe. The Environmental Protection Agency (EPA) is now moving to assess with greater accuracy the number of leaking tanks and the problems they pose. It would be both prudent and wise to await the completion of the EPA's current data gathering program before assessing the magnitude and scope of the problem.

Should it be determined that federal legislation is needed to deal with petroleum-related tanks leaks, API believes strongly that CERCLA is not the appropriate vehicle. Efforts to address underground storage tank leaks by removal of the petroleum exclusion are inappropriate because oil spills are adequately addressed by current state and federal laws. Removal of the petroleum exclusion is unnecessary and would complicate, delay and hinder an already well functioning response system.

Under CERCLA, government response systems have been developed to respond to extremely complex contamination situations involving scores of response parties. In the instance of underground gasoline tank leaks, the physical conditions are limited, the environmental impact is less severe, and there are a relatively few potentially responsible parties. Thus, the likelihood of protracted settlement negotiations or law suits is not as great as it is with abandoned hazardous waste sites.

Government response to cleanup of abandoned hazardous waste sites could be impeded because release reporting requirements would apply to a very broad spectrum of the nation's fuel supply infrastructure. Corner gasoline stations; federal, state, and municipal government; fleet operators; pipelines; bulk storge terminals; railroad tank cars and tank trucks would be included under CERCLA. Further, the liability provisions of CERCLA could unfairly extend financial responsibility to persons other than the tank owner or operators, such as suppliers and deliverers of products. Those who cause environmental damage should be held accountable for their actions, not a distant party.

Many state and local governments have already taken steps that go beyond current federal controls to deal with actual and potential spills and leaks of petroleum products. The petroleum industry has cooperated in those efforts. Approximately 42 states have adopted the basic principles established in the National Fire Protection Association's (NFPA) Code which address tank system integrity. API worked closely with the NFPA in developing this code and we fully endorse its emphasis on strict inventory control.

In addition to these fire and safety efforts, 19 states have existing or proposed statewide laws relating to the underground storage of petroleum, and many local jurisdictions have enacted requirements for petroleum tank permits, equipment specification, installation procedures, secondary containment, tank replacement, inventory control, testing of tanks, monitoring for leaks and procedures covering abandonment of underground tanks.

API believes that state and local governments are in the best position to establish reasonable and effective regulations for underground gasoline storage tanks. The risks and consequences of tank leaks vary from place to place thus making localized response the best solution.

Oil companies have been aggressively upgrading and replacing suspected tanks with specially protected steel or fiberglass tanks where appropirate. Thus, the percentage of unprotected steel tanks owned by the oil companies will continue to decrease.

API and its member companies have been actively pursuing voluntary programs for several years. The Institute has developed a set of Recommended Practices designed to protect ground water through leak prevention, detection, and mitigation measures. We believe that these Recommended Practices are an effective voluntary means of groundwater protection and could serve as a model for any state or local regulatory effort.

In addition to the above concerns, API has concerns with several specific provisions of H.R. 5640.

The notification requirements imposed on suppliers (Section 402(a)(1) are not reasonable. This provision presupposes that a supplier of a hazardous substance, even one commonly used in commerce, will have knowledge of how those substances are stored on site. It is questionable whether a supplier could even obtain such information. Does this legislation intend to give suppliers the right to enter another property or have access to another company's files to obtain these data?

Further, it is unclear how this notification requirement relates to an overall government program because suppliers will be able to provide information on a very limited number of storage tanks. Limiting reporting requirements to suppliers gives the wrong message—that large suppliers are somehow responsible for the subsequent actions of these who purchase products from them and store those products in their own tanks. The appropirate message shoud be that those who own or operate the storage tanks should be responsible.

Section 402(a)(4) requires that suppliers provide information concerning size, type, locations, uses, current or previous releases and corrective action. It is unlikely that all of this infomation will be available to a supplier and it is unreasonable to expect that it can be obtained. Further, it is even unclear that government agencies can obtain such information. Suppliers would be at the mercy of owners for this information and could be held accountable for false or inadequate information

The definition of "underground storage tank"' is extremely broad (Section 401(b)). The language is particularly troubling because in industry the term "tank" is often used to describe facilities which are not totally enclosed. Use of the term "partially underground" is also troubling in that it is not clear, for example, whether a tank with 6 inches of soil around its base is underground. Nor is it clear that an aboveground tank whose supporting structures and pipes are underground, is beyond the scope of the bill. Pipelines carrying petroleum products could be covered in some instances.

A provision of H.R. 5640 (Section 107 which adds section 104(c)(4)(B)(iii) to CERCLA) require RCRA permitting standards in cases where hazardous substances have been contained on site. This could have drastic effects on commerce. It may be impossible to fully remove substances from underground. Thus any facility where a release has occurred could be required to meet all RCRA permit standards. In the context of underground storage tanks, gasoline stations and other facilities where gasoline is stored could be required to meet RCRA standards. This is an unjustified and unwarranted extension of RCRA standards into normal commercial activity.

Section 403(a)(4)(A), by specifying "location" could lead to prohibition of tanks over specific aquifers. API opposes the implications of land use controls by federal programs. If there are particularly sensitive locations, higher performance standards should be considered.

EXPANSION OF CERCLA TO INCLUDE "POLLUTANTS" AND "CONTAMINANTS"

H.R. 5640 would extend CERCLA to include releases of pollutants and contaminants, which are very broadly defined. This change is significant in that it would encourage federal response to many insignificant pollution situations and would invite a federal response more properly belonging at the state and local level. These provisions would subject industry to liability and cost recovery (Section 107 of CERCLA), administrative orders which cannot be appealed, substantially increased penalties and citizen suits because of releases of pollutants or contaminants, even if they were released under federal or state permits. A firm could be liable for a release through Public Owned Treatment Works, even if it complied with all requirements, such as pretreatment.

The original inclusion of the authority to address "pollutants and contaminants" in Section 104 of CERCLA was intended to give the federal government response authority even for those substances which had not been formally identified by EPA as "hazardous substances." However, liability for the release of such pollutants and contaminants was not included because Congress recognized the patent unfairness of subjecting parties to large response costs when they had no reason to know the substance was potentially hazardous. Moreover, by not applying the liability provisions to pollutants and contaminants, Congress placed an implicit check upon the imprudent use of EPA's authority to respond to the release of any or all such substances.

This provision of H.R. 5640 can only diminish the effectiveness of CERCLA response to the significant problems associated with hazardous waste sites, because other less significant releases will be candidates for cleanup. It would also raise the potential for abusive use of the Agency's broad enforcement authority and could result in nuisance actions via citizen suits. This provision should be deleted and the authority to address "pollutants and contaminants" be left as it is currently stated in Section 104 of CERCLA.

RCRA PERMIT STANDARDS REQUIREMENTS

Section 102 of H.R. 5640 requires that if hazardous substances and pollutants and contaminants are contained on a site, RCRA 3005 standards will apply. This provision establishes an extraordinary precedent in requiring RCRA standards, which are related to wastes, to be applied to facilities where hazardous substances are located. There may be circumstances where it may not be physically possible to remove all hazardous substances and where containment is the most appropriate approach. If, for example, an underground tank leak occurs, it may not be necessary, desirable, or possible to remove all hydrocarbons. According to this provision, RCRA standards could apply to a gasoline station—something hardly envisioned when those standards were developed. If the environmental threat is removed, for example, by providing an alternative water supply, does it make sense to apply RCRA standards to a site which is no longer a real threat? Does the Congress really intend to extend RCRA permitting standards to pollutants and contaminants? While logic would dictate the answer to be no, that is not the way H.R. 5640 is written.

MANDATORY ACTIONS—UNREALISTIC TIMETABLES

Reportable quantities

Section 103 of H.R. 5640 provides that within six months after enactment, regulations must be promulgated defining the quantities of hazardous substances which, when released, must be reported. API has been following the process of establishing reportable quantities (RQs) because of the potential impact on petroleum operations. We have found, as EPA has found, that the process of establishing RQs is enormously complicated. The approach must distinguish between events which might be worthy of action vs. reports which overload the National Response Center. Data for many substances are simply not available. The meaning and implementation of the "continuous release" provisions must be explored. The implications of the federally permitted release provisions must be fully assessed. How should identical releases be reported for two facilities, one of which has a state permit and one of which does not, because the state is in compliance with applicable statutes and does not have to issue permits?

EPA is systematically moving toward establishing RQs for those hazardous substances for which data exist. Mandating a schedule will force the Agency to ignore many of the complicating factors associated with establishing RQs and can only lead to inefficiences and complications.

Toxicological studies

The requirement for the preparation of toxicological profiles in a short period of time (Section 109) can only result in inferior work products. The quality of these studies will be of great importance because they will probably be used in determining cause of injury under Title II of H.R. 5640. Adequate time must be allowed for a thorough, scientifically sound program. The results of the studies should be subject to rigorous peer review and public comment.

Mandatory site listing and cleanup schedules

H.R. 5640 timetables for remedial investigations and feasibility studies are too short. Infeasible deadlines also may constrain regulatory decisions related to cleanup operations. Requiring a specific number of sites to be added to the National Priorities List (Section 111 of H.R. 5640) presupposes, without proper evaluation, that there are thousands of sites that will require federal action. The number of target sites should be determined through a comprehensive evaluation program; the number should not be determined by legislation. This would allow a more efficient allocation of resources and focus attention on the most significant sites requiring federal attention.

The more rapid the rate of cleanup the less time there is to learn from initial experiences and apply what is learned to later cleanup sites. Obviously, the nation seeks to have the most rapid cleanup schedule that is feasible. But, in choosing the best cleanup schedule, the Congress should consider the effects of the schedule on the efficiency with which each dollar will be spent. The ultimate goal is cleanup; spending money is but the means to that end.

CITIZENS SUITS AND PETITIONS

Section 305 of H.R. 5640 allows citizen suits. While other environmental statutes allow citizen suits to compel government officials to take actions under the law, H.R. 5640 is a departure from previous approaches. Section 305(1)(B) would allow citizen suit against "any person . . . who *has* contributed or who is contributing to the *past* or present *handling, storage,* or *treatment,* or disposal of any hazardous substance or pollutant or contaminant . . ." (emphasis added). The effect of the provision could result in wholesale suits against any commercial enterprise, regardless of the relationship between that enterprise and the release of concern.

The citizen suit provisions of H.R. 5640 could have the effect of complicating the cleanup process tremendously. These suits could potentially interfere with the negotiation process between the government and potentially liable parties and could hamper the settlement of cases. Specific cleanup procedures could be established by judges lacking the technical expertise to resolve many of the issues involved in such actions.

H.R. 5640 would provide for citizens petitions for additions to sites for federal action. While API does not object to the right of citizens to obtain the attention of government agencies, the provisions of H.R. 5640 sow the seeds of eternal conflict. In particular, H.R. 5640 would allow such petitions to extend to any facility where a substance is "treated, stored, recycled or disposed of." Further, citizens' petitions would be allowed for sites where federal action has already been taken under CERCLA. The provisions of H.R. 5640 would allow vast new authorities for information gathering and administrative order for facilities which are not waste sites. Further, these provisions could encourage continuous harrassment by parties who are dissatisfied by the decisions of responsible government officials.

PRIVATE PARTY CLEANUP

H.R. 5640 would make a major change in Section 104 with respect to the responsiblity of private parties to expeditiously and voluntarily remove or clean up hazardous substances. CERCLA Section 104 currently provides that the release or threatened release of a hazardous substance will authorize initiation of a federal response unless the President determines that the removal and remedial action will be done properly by the owner and operator or by any other responsible party. However, H.R. 5640 appears to prohibit any removal or remedial action being undertaken by a private party unless and until the Administrator affirmatively approves the action being taken. Quite naturally, the EPA will focus on sites which represent the most significant problems. Thus it is likely that positive permission to clean up a site of less than national signficance will be difficult, if not impossible, to obtain. Private party cleanups will thus be unnecessarily delayed. API is concerned that the delays attendant to the making of this affirmative determination could actually jeopardize the environment where an immediate response is necessary, and could increase exposure to liability. More often it will merely delay the initiation of a voluntary removal action by the responsible party.

To further complicate matters, section 110 of H.R. 5640 would require public notice and comments before any plans for remedial action can be taken by any person at any site. This will further impede the progress of voluntary, private party cleanup.

Because the scope of the removal authority of the Administrator extends to any release or threatened release of a hazardous substance (or any pollutant or contaminant which may present an imminent and substantial danger), must a private party obtain an approval to clean up even in those instances where less than the reportable quantity of a substance is released? If so, this effectively negates the notification limitation inherent in the use of reportable quantities as response triggers.

We believe that voluntary cleanups, especially for spills or similar releases, should not be artificially impaired. There are a variety of reasons to encourage private parties to undertake response operations rather than resort to a federal response with the fund. First, use of monies above $1 million under the fund is conditional on financial and regulatory commitments by the affected state. Second, federal cleanups are encumbered by more regulation than those conducted by private parties. Third, federal cleanups are often more expensive because private persons have greater ability to undertake cost-effective operations. Fourth, avoiding the cost of federal actions is an incentive to initiate private solutions. Fifth, private efforts can engender good will for responsible parties and avoid placing EPA in difficult political situations. Legislation should be framed to encourage, rather than discourage, voluntary cleanups.

The changes embodied in H.R. 5640 raise new ambiguities as to the responsibilities incumbent upon a party releasing almost any substance—hazardous or even non-hazardous—and would appear to limit that party's ability to clean up the release voluntarily.

LIABILITY STANDARDS

Currently CERCLA imposes a strict liability standard and provides few meaningful defenses to potentially responsible parties. Some courts have interpreted the Act as allowing joint and several liability, but this leaves open the question of liability apportionment.

The liability requirements in CERCLA may have practical justification regarding abandoned hazardous waste sites. However, in the context of H.R. 5640, which is far more expansive in the types of substances and facilities potentially covered, such expanded liability provisions raise the likelihood of imposing serious inequities. It does not appear that consideration has been given to options which might be more appropriate, given the scope of H.R. 5640.

H.R. 5640 leaves the question of apportionment open. The failure of the bill to include specific provisions allowing for the equitable apportionment of damages and to create a right of contribution with regard to other responsible parties perpetuates the potential problems caused by the incorporation of joint and several liability into the bill. Indeed, the specific statutory adoption of joint and several liability could mean that there would be total liability for responsible parties even if there was a reasonable basis for divisibility.

These considerations, however, are perhaps outweighed by the practical impact of these vigorous legal standards. By imposing joint and several liability, potentially responsible parties have no incentive to come forward, absent an enforcement action, to initiate a voluntary cleanup. This is unfortunate because it not only discourages responsible corporate behavior, but it also guarantees cleanups will have to be initiated under adversarial conditions. We believe the liability standards of H.R. 5640 should be reconsidered in light of their inequity and impracticality. If the strict liability standards originally borrowed from Section 311 of the Clean Water Act are to be imposed, and now augmented by joint and several liability, then defenses such as those contained in Section 311(f) should also be included.

OTHER ISSUES

Post-closure liability fund

H.R. 5640 would repeal the Post-Closure Liability Trust Fund provision of CERCLA. This would eliminate any assurance that parties disposing of waste in a permitted facility would be subject to reasonable liability limits. Repeal of the Post-Closure Liability Trust Fund would subject companies to unlimited liability for an indefinite future, even if there were negligence on the part of third parties, and would make hazardous waste management unnecessarily costly and difficult. Further, this provision would discourage cleanup because a party entering a cleanup agreement would be subject to greater financial risks than that of the cleanup alone.

Continuation of the modest taxes now imposed to finance the Post-Closure Liability Trust Fund will assure a reliable source of funds for the Administrator to handle any clean-up problems that may occur after closure of current RCRA disposal sites. These taxes are levied on all persons who operate either onsite or offsite disposal facilities. It is not enough to simply clean up the problems of yesterday. We must anticipate the potential problems of the future and provide the necessary funds to deal with them. Repeal of the Post-Closure Liability Trust Fund would make such objectives more difficult to achieve.

Penalties

Section 104(e)(2) of H.R. 5640 significantly increases penalties. Specific concerns are those related to not complying with "requests". While large penalties may be appropriate when dealing with abandoned waste sites or emergency situations, they are not justified given the very broad scope of CERCLA and the provisions of H.R. 5640 and certainly not with failure to comply with any "request" of a government official.

Expansion of administrative authority

H.R. 5640 would give the Administrator the unbridled authority to establish such administrative procedures for abatement orders *in his sole discretion,* (Section 114(d)(1)). This is especially inequitable because potentially responsible parties would be prohibited from seeking judicial review of any government response costs for which they may ultimately be responsible (Section 114(d)(2)).

Laboratory tests

H.R. 5640 (Section 115(d)) would make EPA laboratory tests presumptively accurate and a defendant could overcome the presumption by establishing a preponderance of evidence that the test results lacked a reasonable basis. EPA should be required to maintain and demonstrate the same good standards of accuracy and quality control as any other party involved in sampling and analysis. There is nothing magical about the quality of governments laboratory tests, many of which are done by private contractors.

Petition for health effects studies

Section 112 would allow citizen petition for health effects studies. The threshold for petitions is exposure and "an empirical analysis of the level of exposure." Petitions can be directed toward "a facility (A) where such substance is (or *was* in the past), treated, *stored,* recycled . . ." (emphasis added).

The threshold for petitions is so low as to make it meaningless. Any exposure at any level would be subject to a petition. Most manufacturing processes store or have stored some of the 2,000 substances which are under consideration as "hazardous". This provision opens the possibility of endless citing petitions for reasons other than the intent of the statute. There is ample evidence to support the view that a minority wishing to halt any activities of which they disapprove for any reason will use any vehicle available to achieve their goals. This provision would encourage such disruptive activity.

Expansion of use of the fund

Section 116(b) of H.R. 5620 changes Section 111(e)(2) of CERCLA. The change limits the percentage of the Fund that can be used for emergency relief and health effects studies. However, Section 111(e)(2) currently requires that 85% of Fund revenues can only be used for payment of response costs, injury to natural resources, enforcement and selected health studies (Section 111 (a)(1)(2)(4) and (c). The proposed amendment would remove this constraint, thus allowing a wider use of the Fund. If Congress intends to open the Fund for broader purposes, it should do so in a direct, rather than indirect way.

Federal common law

H.R. 5040 would allow persons or classes of persons to seek enforcement under common law (Section 305(e)). The federal courts created the doctrine of common law in the absence of federal statutes. The assumption is that statutory law controls and the question is whether the statutory scheme addresses the matter at issue. The need for federal common law is questionable in light of the extensive statutory and regulatory requirements in the hazardous waste management and other statutory requirements for the regulation of hazardous substances.

TITLE II: FEDERAL CAUSE OF ACTION

Title II of H.R. 5640 would create a new federal cause of action, with concurrent jurisdiction in state and federal court, for individual claims of personal injury and property damage from hazardous substances. State laws would not be preempted. API continues to question the need for a Congressionally-mandated federal remedy.

In addition, the provisions of H.R. 5640 as written need substantial clarification, and more consideration should be given to their ramifications.

WHAT IS THE NEED FOR A CONGRESSIONAL REMEDY FOR PERSONAL INJURY AND PROPERTY DAMAGE FROM HAZARDOUS SUBSTANCES?

Individual state laws already provide a forum in state courts and a range of causes of action for both injunctive relief and monetary damages for injuries to health or property from environmental exposures. These causes of action include private and public nuisance, trespass, negligence, and strict liability in tort (several subcategories of strict liability have been adopted among the states—some within the nuisance category, some under the doctrine of abnormally dangerous activity under the Restatement (Second) of Torts (1965), some by analogy to product liability law). In fact, the so-called 301(e) Study Group concluded that there are causes of action available on which to base a claim for damage in the states.[1] Moreover they unanimously advised against a supplemental federal cause of action or federal forum.

H.R. 5640 does address one potential barrier in a handful of states, the statute of limitations. However, we believe this barrier is one which can and should be remedied at the state level. And in fact there is considerable activity toward reform in those states.

Tying a remedy for private persons' damages to the Superfund law will greatly and unnecessarily complicate such litigation with interpretational issues arising under that statute. State laws can and do handle these claims now, and without embroilment in the complex but collateral issues of implementing waste site cleanup legislation.

THE FEDERAL CAUSE OF ACTION WILL BE DIFFICULT TO INTERPRET FOR COURTS

There are a number of issues raised by this sort of tort reform legislation which deserve full debate. Their resolution will have great impact on the courts, citizens and taxpayers. "Concurrent jurisdiction" in both federal and state courts will necessitate that a federal court interpret state law, or a state court the rules to be applied to the federal cause of action, since both federal and state causes of action would be heard together in one proceeding by pendent jurisdiction.

There are many issues which will arise in litigation under Section 202 which are not addressed in this bill. Where the bill is silent, is the federal court to apply "federal common law" (which will have to be created in the eleven circuits) or state law? If the latter why do we need a federal cause of action at all?

On the other hand, if the intent is for courts to create a new federal common law of torts, that law may conflict with state tort law claims, available because they are not preempted under Section 205 of the bill.

For example, even though punitive damages are not compensable under the federal cause of action, they might be available under the parellel state claims. In most states, punitive damages require evidence of intentional, grossly negligent or reckless misconduct on the part of the defendant. Strict liability, however, turns only on the presence of a hazard, not on what the defendant knew or should have known of the hazard or his conduct given that knowledge (i.e. it is not fault-based). A number of state and federal courts have acknowledged the theoretical inconsistency between the no-fault risk-spreading concept of strict liability and the punitive, deterrent, fault-based function of punitive damages.[2] This proposal will aggravate this logical and evidentiary conundrum. If there are conflicts between the Federal Rules of Evidence and State rules, which should prevail? Whichever is chosen may well determine the outcome for the claim.

---

[1] Committee Print, Senate Committee on Environment and Public Works, Injuries and Damages from Hazardous Wastes, Analysis and Improvement of Legal Renedies, No. 97-12, September 1982, Part I at 193. (301(e) Report)

[2] See, for example, the recent discussion in *Jackson* v. *John Manville Sales Corp.*, 727 F.2d 506 (5th cir. 1984).

SPECIFIC UNCERTAINTIES OF THE PROPOSAL

Scope

Several questions arise about the scope of Section 202.

First, the bill is silent in Title II about the liability of federal, state and local governments for private damages claims concerning releases. The government should have the same obligations and liabilities as private parties.

Second, Title II imposes strict (no-fault) joint and several liability (meaning a small remote generator might conceivabley have to pay for all the damage) on a wide range of parties: owners and operators of a facility, transporters, and generators. More thought should be given to how liable parties are specified. Strict joint and several liability on all categories of persons in the chain of production and handling can be unduly harsh—especially if applied against persons who don't have "control" of the release.

Third, there is no definition of the term "release" for purposes of Title II.

Fourth, liability for damages for federally-permitted releases is not addressed. We think there should be some protection for parties who are releasing in compliance with applicable environmental laws and regulations.

STRICT LIABILITY

Section 202 does not define what is meant by "strict" liability. However, the limited defenses outlined in Section 202(b)(3) would indicate a very "strict" form of strict liability.

Strict liability will be a harsh standard of liability for many peotential defendants, who, under Section 202, could be liable for "releases" over which they had no actual control. For example, negligence on the part of a dumpsite owner no longer available to be sued could become the joint and several, strict responsibility of a single small generator of waste identified with that site. In some cases, would not a negligence standard be more appropriate for purposes of equity?

JOINT AND SEVERAL LIABILITY

Joint and several liability means that any one defendant subject to the judgment for damages may be liable for the toal amount of damages owned to the injured party, even those for which he is not directly responsible, and even if there were other defendants to the suit.

Joint and several liability is a harsh doctrine when applied to persons who are remote from control of the release in question. Moreover, use of joint and several liability can encourage two undesirable endpoints—lawsuits against only one potentially liable party, no matter how relatively insignificant, because that would be technically sufficient; or lawsuits against enormous numbers of potentially liable parties (especially a problem for long-latency injuries for which many years of exposure could be covered, and for chemical release cases involving mixtures of various contributors' wastes or products). The former is simply unfair; the latter results in highly wasteful transaction costs of litigation.

RIGHTS OF CONTRIBUTION AND SUBROGATION

The bill as written suggests an intent to allow suits for subrogation, contribution and indemnification because it references apportionment and divisibility of the harm among the defendants in Section 202(b)(1). Failure to expressly create these rights is a serious flaw.

CONFOUNDING FACTORS

H.R. 5640 is silent on apportionment for "confounding factors" which may contribute to the development of the harm complained of under Section 202. For example, concerning chronic long latency diseases, lifestyle factors (e.g. smoking, diet, alcohol consumption, medications etc.) should be considered in evaluating causation and damages. The complexity and uncertainty surrounding such disease claims need much greater attention than H.R. 5640 provides.

COMPARATIVE RESPONSIBILITY

Most states recognize some form of "comparative negligence," which allows apportionment and reduction of damages for contributions to the harm not generated by the defendant(s).

OCCUPATIONAL EXPOSURES

Under Section 212, if there are confounding occupational exposures mixed with environmental exposures, there is no apportionment for the work-related contribution to reduce the judgment under Section 202.

Occupationally-related exposures should remain actionable exclusively under worker compensation statutes.

STATUTE OF LIMITATIONS

The statute of limitations for the federal cause of action will allow any claim no matter how old to be brought within three years of enactment [Section 211(b)]. This will create serious conflicts with state law, create constitutional issues as to retroactivity, and allow untold claims based on past experiences for which there can be no feasible defense.

Likewise, the discovery rule used in Section 211(a)(1) could be interpreted to allow the following to occur:

If "A" is exposed in 1944, becomes ill in 1954, and dies in 1956, but the causal nexus is discovered in the year 2000, the claim could conceivably be brought in 2003.

Retroactivity, therefore, is potentially limitless under H.R. 5640.

CONCLUSION

In conclusion, the proposed federal cause of action allows generally parallel but independent remedies under state and federal law. It will create difficult procedural and substantive conflicts and uncertainties for courts, increase the already heavy case load of the federal courts, and protract rather than expedite litigation of hazardous damage cases.

We believe that personal injury and property damage from hazardous substances should be handled under state law at the state level, that proponents have not made the case for adding a federal cause of action, and that a federal cause of action would create problems, as noted.

ADDITIONAL DOCUMENT TO BE SUBMITTED FOR THE RECORD

Statement on behalf of the American Petrolem Institute presented by Richard W. Kreutzen accompanied by John H. Fitzpatrick before the House Subcommittee on Commerce, Transportation and Tourism, Washington, D.C., March 1, 1984, on Superfund reauthorization.

Mr. **Gibbons**. Miss Pirages.

STATEMENT OF SUELLEN W. PIRAGES, PH.D., DIRECTOR, INSTITUTE OF CHEMICAL WASTE MANAGEMENT

Ms. **Pirages**. I am Suellen Pirages, the director of the institute of chemical waste management, a component of the National Solid Waste Management Association. The Institute was formed to promote proper management of hazardous waste and has as its members those commercial firms engaged in all aspects of waste management, including removal and remedial responses.

I would like to summarize our views on two sections of the House bill 5640, title V section 502 and section 503. Section 502, as you know, calls for the repeal of the post-closure liability fund. This trust fund was created by Congress in 1980 to insure that moneys for unanticipated problems after closure of a RCRA facility would be available. The need for this fund is as important now as it was then.

I also suggest that the continuation of this fund has been supported by a wide variety of Government and industrial groups and my written testimony includes documentation of that support. We believe that the attempt to eliminate the fund is a misguided effort at providing further disincentives for land disposal of hazardous waste. We feel there are other ways to discourage land disposal without jeopardizing moneys available to compensate for injury to people or property.

As the spokesperson from Treasury indicated, there are no other financial mechanisms for insurance available today to provide funds after closure of a RCRA facility. The argument is often made that the post-closure liability fund is a subsidy for planned obsolescence. This is not true. Whether or not there is a post-closure liability fund, all operating land disposal facilities, must comply with stringent RCRA regulations.

Turning attention to section 503, we support increasing the funding level for the Superfund Program but would insist that it should be a stable and adequate funding source. The feedstock tax has proven to be such a stable source and has been easily administered.

Two reasons are often given for justifying the implementation of a waste end tax. First, that it is a reliable supplemental revenue source; and second, that it is an incentive to change the behavior practices of hazardous waste management.

I contend that neither are valid. In those States where the waste end tax has been implemented, it has failed to generate the necessary revenue. In fact, in some States, they have found that the administrative costs far exceeded the collection of revenue. There are a number of practical administrative questions concerning the waste end tax. There are vast differences in the definition of hazardous waste between Federal and State programs and it is not clear how a tax could be collected that would differentiate among these differences.

As taxpayers, our facilities would find that the recordkeeping could get very highly complex, trying to differentiate which is a State hazardous waste and therefore not applicable to a Federal waste end tax.

For onsite facilities, and I must remind the committee that 96 percent of all hazardous waste is disposed onsite, there is not an easy method to track the amount of waste going into land disposal. The RCRA manifest is not required. There is only an annual reporting mechanism.

We would suggest that if the reason for proposing a waste end tax is to increase revenues, there are other ways to do it. In fact, the Committee on the Environment and Public Works in the Senate is considering some other new proposals. I would suggest perhaps this committee staff may wish to talk with them.

Regarding the fact that it is an incentive to change behavior, we also find there is no evidence for this. In those States where it has been tried, it is suggested there might have been an increase in illegal dumping. There is also a problem of shifting to practices that are not desirable. For example, a lot of dilute aqueous wastes are put into deep wells, injected underground. Depending on discharge limits for particular municipalities and States, some of these wastes could be further diluted and discharged directly to surface waters and into public waste treatment works. We feel this is an undesirable action in an attempt to perhaps avoid a waste end tax.

I would like to remind this committee that according to the recent EPA data, only 1 percent of the total hazardous waste generated in 1981 went to landfills. Twenty percent went to land disposal, which includes surface impoundments, deep injection and land farming.

Recently, EPA and State programs have begun to implement regulations that will restrict the type of wastes going into a land disposal facility. We support these activities. We believe that the regulatory approach to changing management practices is far more reliable, more equitable, and more easily enforced.

We feel that the RCRA and Superfund programs are just beginning to work and would ask this committee why we should encumber both programs with an experimental taxing mechanism.

As a close to my testimony, I would like to once again urge this committee to remove section 502 to allow a continuation of the post-closure liability trust fund, and to not include section 503, implementing a waste end tax.

Thank you.

[The prepared statement follows:]

STATEMENT OF SUELLEN W. PIRAGES, PH.D., DIRECTOR, INSTITUTE OF CHEMICAL WASTE MANAGEMENT

Mr. Chairman and members of the Committee, my name is Suellen Pirages, I am Director of the Institute of Chemical Waste Management, a component of the National Solid Wastes Management Association. The Institute was formed to promote proper management of hazardous wastes and has as its members those commercial firms engaged in all aspects of waste management, including removal and remedial responses.

The Institute is pleased for the opportunity to testify before you on the reauthorization of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). We believe that an expanded CERCLA cleanup program should be reauthorized as soon as possible, and we support many of the measures included in H.R. 5640, the Superfund Expansion and Protection Act.

Without question, there is major national concern for proper management of hazardous waste, and rightly so. Not only has the potential threat from mismanagement of hazardous waste been recognized, but there has not yet been a significant dent made in cleanup efforts, either to remedy problems of past management or to license facilities in accordance with tough new standards under the Resource Conservation and Recovery Act (RCRA). For example, EPA data indicates that only three (3) land disposal facilities have received final permits. Small wonder that the public does not distinguish between the "problem" sites of the past and the "solution" sites licensed under RCRA. These two programs are inextricably entwined. Progress in licensing management facilities and in cleanup efforts will reassure the public that the job can be done and done right.

Our testimony will address two sections of H.R. 5640, Title V: Section 503—establishment of a waste-end tax, and Section 502—repeal of the Post-Closure Liability Trust Fund (PCLTF).

POST-CLOSURE LIABILITY TRUST FUND

Although the PCLTF is contained in CERCLA, it is actually essential to the system of hazardous waste regulation that we have in place today under RCRA. The Fund was created by Congress in 1980 to ensure that monies always would be available should any sites, being permitted today, require remedial action closure. The fund also provides for compensation to injured parties. If the new RCRA regulations produce their desired effect, the need for remedial action will be minimal. However, the American public has a right to expect assurance that funds would be readily available.

The PCLTF is as important today as it was in 1980, and its continuation is supported by government groups such as the National Governors' Association, National League of Cities and National Association of Counties, by industry groups such as the Chamber of Commerce, Chemical Manufacturers Association and National Association of Manufacturers. A list of associations that have actively expressed their support of a PCLTF with proposed changes is attached. We believe that the elimination of the Fund is a misguided attempt to provide further disincentives for land disposal of hazardous wastes. Before explaining that statement, I'd like to provide background on how the Fund works.

Mechanisms for financial responsibility are essential to a program for regulating land disposal sites. The PCLTF is such a mechanism. It is a prepaid, pooled-risk fund managed by the federal government. Monies are collected from an operator during the active life of a facility at the rate of $2.13 per dry weight ton. Those sites that operate with a final RCRA permit, remain trouble-free, and do not pose a threat to public health can qualify for entry into the fund. The operator of a facility remains responsible for monitoring and maintenance for thirty years after closure of the facility. The fund is currently capped at $200 million.

It is generally agreed that the cost of long-term protection of a site should be internalized in the cost of disposal, as best as these costs can be predicted. This internalization eliminates any unintentional subsidies of land disposal. Since the probability is low that any one site will require subsequent expenditure of funds, the concept of a pooled fund is appealing.

Today, there are no financial mechanisms, either actually or conceptually available that could cover the perpetual liability of a closed hazardous waste disposal site. In 1982, the U.S. Department of the Treasury made that determination after completing a Congressionally mandated study. We have attached that determination for the record. Environmental impairment liability insurance, a relatively new development for "non-sudden" occurrences, is available during operaton of a facility, but is not available at all for facilities after closure. It is a one-year policy with no guarantee of renewal. Even during operation of the facility, this insurance is sold on a claims-made basis, which means that the insured must be paying premiums at the time at which the claim is made. For several reasons indicated in the attached document, the Treasury concluded that the private insurance industry could not, and will not, meet the needs of the public for closed land disposal sites.

We can agree with the objectives of H.R. 5640 in discouraging disposal on and into the land. Congress is moving toward passage of amendments to RCRA that will prohibit the land disposal of certain wastes as well as tighten the technological standards of management for land disposal facilities. Congress has also seen fit to increase the appropriations for hazardous waste programs for FY '84 and FY '85. The regulatory system should be the main driving force to industry's use for environmentally sound management techniques for hazardous wastes.

Treatment processes are widely used today, and will increase in the future. However, there will always be a need for some land disposal capacity for the disposition of treatment residues, many still classified as hazardous, and for those wastes that cannot be treated or destroyed. Certainly in the near future, treated waste residues will continue to be disposed as though they were hazardous wastes. For any land disposal facility, there is a continuing liability. We don't expect that a RCRA permitted facility will require extensive remedial action after closure; but the public has the right to expect that there will be funds available to meet unanticipated problems.

The argument has been made that existence of the Fund encourages planned obsolescence at disposal facilities, that sites will only be designed to last as long as the operator retains liability. This is not true. If the Fund were abolished today, the level of performance as required by the federal government for disposal facilities would not change. The stringent regulations developed by EPA would still be met as a condition for receiving an operating permit.

What if there is no Post-Closure Liability Trust Fund? If there were no guaranteed source of monies to cover residual risks, any future remedial action would have to be initiated through Superfund—either as an enforcement action against the operators or a fund-financed cleanup action. Of course, an enforcement action is only possible if facility owners or operators can be identified. Because the extent of environmental contamination for new RCRA permitted sites is likely to be much less than at current CERCLA sites, a fund-financed action is unlikely, but still possible. Will Suprfund still be in existence decades from now, when problems might be expected to occur? Can we guarantee that a site owner will be around forever? Certainly not in the case of an individually-owned site; even corporations have been known to cease to exist. Elimination of the Post-Closure Liability Trust Fund means playing the lottery—taking the chance that an operator will be able to pay for cleanup and compensation. How much more effective it is for the public to have a ready source of monies—paid by the responsible party—available without question, without necessary administrative enforcement actions, and without litigation, to address any environmental problems at the sites immediately. The asbestos plaintiffs in the Manville case would have benefitted, if such a fund had been established forty years ago.

There are some aspects of the fund that could be re-evaluated. Currently, the fund is capped at $200 million. Perhaps this is not an appropriate ceiling. An increase in the cap, or removing it altogether could be considered. No one can predict today what the demands on the fund might be, but it is essential that the size of the fund be perceived as sufficient to cover potential cleanups and compensation. By enabling industries that must dispose of hazardous waste to manage their long-term liabilities, responsible companies will be able to continue operations and will be encouraged to engage in the best waste management practices.

WASTE-END TAX

Nearly everyone would agree that the Hazardous Substance Response Fund as authorized by CERCLA in 1980 will not be sufficient. Although nearly 600 sites have been included on the National Priority List (NPL), there are more sites waiting to be fully evaluated for inclusion. Although most sites on the existing list have received some attention from EPA, in most cases, actual cleanup of many sites will only take place far down the road. There is only a little more than a year left in the original five year program, and yet "final" cleanup has taken place at only six NPL sites.

If assuring funding for Superfund is the prime objective, the ICWM must insist on a stable and adequate funding source. The present feedstock tax has proven to be an administratively simple, steady source of revenue. Because the IRS must track only about 800 taxpayers in collecting the feedstock tax, it has not been necessary to increase the IRS budget. We believe that the front-end tax concept is a sound one, and should be improved by expanding its base, increasing rates where appropriate, and addressing the concerns many industries have expressed about competing imported products made from these feedstocks.

A waste-end tax is included in H.R. 5640 as a supplement for the feedstock tax. These taxes undeniably have a political and emotional appeal but their real value is questionable. In fact, waste-end taxes can create undesirable distortions in current waste treatment and disposal practices. The Institute opposes waste-end taxes both on practical and policy grounds. First and most important, as a revenue raising measure, waste-end taxes have not been successful. In every case where applied, states have realized significantly less revenue than forecasted. In at least one case, collection costs even exceeded revenues. In all cases, the states have been forced to search for additional funds.

There are several possible reasons for revenue shortfalls: (1) estimated quantities of wastes on which the tax fees were based may have been in error; (2) the influence of a tax itself on waste production and management tends to reduce the incoming revenue; (3) illegal evasion of the tax may be a factor; (4) loopholes in the tax rules reduces the amount of taxable wastes. The exact reasons for revenue shortfalls are unknown, but there seems to be general agreement that a waste-end tax will not provide a reliable and predictable source of revenue.

One of the major reasons Congress adopted a feedstock fee, rather than a waste-end tax in 1980, was the relative immaturity of the federal hazardous waste program, and the possibility that a waste-end fee might provide incentives for noncompliance. Although there has been progress in identifying and tracking wastes, the possibility for exemptions from system control remain. For example, a waste-end tax could increase the economic incentive for an industry to seek a political solution either by legislatively exempting their wastes, or through regulatory delistings. Thus, a reduction in the universe of hazardous waste would require increases in the waste-end tax. Serious inequities among industries likely would result. Also, if a consideration of hazard levels were not incorporated into a tax rate, certain industries could be disadvantaged.

The philosophy of using waste-end fees to provide incentives for proper waste management disintegrates when the actual administration of such fees is considered. Let me provide two examples. First, large amounts of dilute aqueous waste are disposed in underground injection wells. Depending on discharge limits, some of these wastes could be further diluted and discharged either directly to surface waters or into publicly owned treatment works. Should this occur as a result of imposing a waste-end tax, the main effect would be to divert waste from proper management and control to drinking water sources. Second, some waste treatment processes increase the volume of the waste while decreasing the level of hazard. In this case, a higher tax would be paid on less hazardous waste, thus resulting in disincentives for treatment.

There are a number of practical administrative questions of particular concern to the commercial waste disposal industry, which handles diverse waste streams. For example, there are vast differences in definitions of hazardous waste between federal and state programs. It is unclear how a tax could differentiate among these differences. As tax payers, record keeping would be highly complex. At off-site facilities, operators will be faced with determining which wastes are subject to the tax, and which are not. He will have to rely on the generator identifying the origin of those wastes. For on-site disposal facilities, those that receive 96% of all hazardous wastes and where manifest may not be required, verification of taxation will be difficult; evasion of the tax will be difficult to detect also.

If the intent of a waste-end tax is to increase revenues for the Superfund, there are other ways to broaden the tax base. The Senate staff for the Committee on Environment and Public Works recently has drafted several options for a funding mechanism. Some of these include a transportation tax imposed on hazardous materials, a tax on those hazardous materials found at a major portion of sites requiring CERCLA remedial action, and a tax on all substances discharged to the environment under federal permits. The tax base for these mechanisms would be quite large and might provide a stable source of revenue. Before imposition of a waste-end tax, it might be prudent to evaluate other potential funding mechanisms.

Should a waste-end tax be included in the final bill emerging from this committee, we would recommend a few changes to address the worst problems of that tax.

(1) It should be made absolutely clear that the tax is collected at the point of disposal only. All treatment residues required to be disposed at a Subtitle C facility, including residues of incineration and other treatment technologies should be taxed. We do not believe this is clear in the language of the bill presently, because the bill provides for several exemptions that appear irrelevant.

(2) There is one technology of waste management, which can be both a treatment and a disposal method—surface impoundments. The owner/operator of a surface impoundment must declare the impoundment either as a treatment facility with wastes removed for ultimate disposal elsewhere once the impoundment is closed, or a disposal facility with wastes remaining in the ground after closure. Under HR 5640, a tax would not be collected on the first (though a tax would be collected at another disposal facility for disposal of the dredged wastes), but would be collected on the second. That is as it should be. However, it may happen that an operator decides not to dredge the wastes, and closes the facility as a disposal site. No tax would have yet been collected on this waste. If the tax is paid only on the weight (if that can be determined) of remaining waste, the full amount of the tax will not be collected, and perhaps even more important the tax has not been charged to the customer. We suggest, therefore, that the existing RCRA financial-responsibility regulations for surface impoundments be revised to include the cost of the tax on the waste as it enters the facility.

(3) We support the use of the metric ton measure rather than the dry weight ton proposed by some. We presently are forced to collect the Post-Closure Liability Tax on a dry weight basis, and it is fraught with problems. Most of our members have chosen to collect the tax as if the entire weight were waste—in essence using the simple ton measure. Those favoring the use of dry weight ton have some valid arguments, particularly that the rate of tax for underground injection on a metric ton basis is too high because of the aqueous nature of the wastes. We know that the authors of the bill intended to tax injection wells at approximately the same rate as other disposal technologies, but the tax rates in HR 5640 actually discriminate against deep well disposal. We suggest that this problem be addressed by adjusting the rate of tax and matching the unit of measure to that reported on the RCRA manifest.

(4) Finally, it should be made clear that documents required by IRS to audit proper collection of a waste-end tax should be those already in use in the RCRA system. In order to have a chance of working administatively, waste-end regulations should track RCRA wherever possible. If changes in RCRA documentation are needed, such as may be the case for operating logs for on-site facilities, IRS and EPA should work together to make sure that the systems remain the same.

Even with these changes, however, we must tell you that our opposition to a waste-end tax remains. Our experiences in those states with waste-end taxes have not been good. Direct discrimination against commercial waste management facilities—where tax rates are higher—has been common. Although HR 5640 does not set differential rates based on whether the waste is managed on-site or by a commercial firm, we believe that there are enforcement biases and institutional factors that may differentiate indirectly. That means that the small and medium sized businesses, the 84 percent of all hazardous waste producers in the country that use our services, are also disadvantaged.

Our hazardous waste program is finally beginning to work as Congress envisioned. Waste generators already are reacting to the increased cost of treatment and disposal by changing production processes to reduce waste generation, by recycling or recovering practices. When all facilities are given final permits under the new amendments to the RCRA, the economic incentive of regulatory compliance will be that much stronger. Generators do not need the incentives that many contend a waste-end tax might provide. State and Federal regulations already provide these incentives. Both the CERCLA and RCRA programs are just beginning to work; it seems to be a poor time to initiate experimental taxation practices.

June 8, 1984.

Hon. John D. Dingell,
Room 221, Rayburn,
Washington, DC.

Dear Representative Dingell: The Energy and Commerce Committee will soon consider H.R. 5640 to extend and expand the Superfund hazardous waste program. Among the proposed changes is one which would eliminate the Post-Closure Liability Fund, a fund established by Congress in 1980 to protect the public against the long-term potential for problems from closed, RCRA permitted disposal facilities.

The Post-Closure Liability Fund is badly needed. There is no insurance or other guarantee that can assure that money will always be available to clean up these facilities. No alternative program of public protection is proposed in its place.

The Post-Closure Liability Fund is a long-range program, since there are no facilities likely to qualify in the near future. Thus, Congress has time to review the program and the operation of the Fund. Under the circumstances, we urge that you remove Section 502 from the bill, thereby rejecting the proposal to terminate the Post-Closure Liability Fund.

Sincerely,

American Petroleum Institute, American Textile Manufacturers Institute, Chamber of Commerce of the United States of America, Chemical Manufacturers Association, Governmental Refuse Collection and Disposal Association, National Association of Local Governments on Hazardous Wastes, National Paint & Coatings, Association, Inc., National Solid Wastes Management Association, Printing Industries of America.

National League of Cities,
Washington, DC, June 11, 1984.

Hon. James Florio,
Chairman, Subcommittee on Commerce, Transportation and Tourism, U.S. House of Representatives, Washington, DC.

Dear Mr. Chairman: On behalf of the National League of Cities and the 15,000 cities we represent, I would like to express our support for reauthorizing the Superfund program and for some of the most critical provisions in H.R. 5640.

NLC's Energy, Environment and Natural Resources Steering Committee recently and, following an excellent presentation by Rena Steinzor of your staff, reviewed our current policy on Superfund in light of recent legislative developments.

First, and foremost, the Steering Committee unanimously supported a $9 to $12 billion Superfund. To support these increases in Superfund, our committee recommends that the feedstock tax rate be increased, that some of the current exemptions from the tax be eliminated, and that taxes be levied on some of the new chemicals deemed by EPA to be hazardous. The Committee, however, does not support a waste end tax. Their apprehension about such a tax stems from their perceptions that it is neither a stable nor reliable source of funds and that a waste end tax may result in under-reporting or illegal dumping of hazardous wastes.

Second, the committee supports the provsions in H.R. 5640 that measure the level of clean-up against existing environmental standards at every site, and that timetables for clean-up be statutorily mandated.

Third, the committee expressed support for the proposed changes in state requirements incorporated in H.R. 5640 such as the 90-10 federal-state match for long-term O & M costs, the deletion of state feedstock tax pre-emption, and applying the 50 percent match requirements only where states own and operate sites. In addition, however, our committee believes that state and local governments be given greater authority in planning and implementing Superfund response actions.

The Committee did, however, express concern that H.R. 5640 does not continue the current post closure liability fund. Their concern for continuing the fund is based on the supposition that liable parties may no longer be available should problems develop years after a site is closed.

The city officials serving on our committee believe that the $200 million cap on the fund should be lifted to allow revenue to accumulate in the fund and that liability not be transferred until 15 years after site closure. They believe this change would encourage RCRA owners and operators to provide adequate long-term protection for closed sites, which the current provisions do not.

In addition, the Committee expressed reservations about both a waste end tax and victim compensation arrangements.

The Committee was concerned that enactment of a victim compensation proposal had the potential to open the floodgates to innumerable claims. Other city officials believe that any such program should address not just environmental injury claims and that such a program should not be administered by EPA.

We congratulate you on the many obstacles you have overcome to bring reauthorization of Superfund to a successful conclusion this year. We support your efforts and look forward to continuing to work with you towards this end.

Sincerely,

ALAN BEALS,
Executive Director.

NATIONAL ASSOCIATION OF COUNTIES,
Washington, DC, June 11, 1984.

Hon. JOHN D. DINGELL,
U.S. House of Representatives, Washington, DC.

DEAR CONGRESSMAN DINGELL: On the eve of the mark-up of H.R. 5640, which will extend and expand the Superfund Hazardous Waste Program, the National Association of Counties reaffirms its strong support for reauthorization this year. We believe that the level of funding provided in the bill is the minimum amount needed to begin cleaning up sites currently on the national priority list.

We further support the combination of a feedstock tax with a waste end tax as a way of both increasing the size of the fund and providing incentives for alternatives to landfilling of hazardous wastes.

Among the proposed changes in H.R. 5640 is one which would eliminate the Post-Closure Liability Fund. The fund was established in 1980 to protect the public against long-term potential problems from closed, RCRA permitted disposal facilities. Without this long-term guarantee, counties and local governments will be placed at financial risk should the responsible parties not be available to pay for post-closure corrective actions. Therefore, we support the retention of the Post-Closure Liability Fund and urge that you delete Section 502 from the bill.

There is a strong consensus among our elected officials who have responsibility for environmental and public health protection that Superfund ought to be reauthorized now. We applaud and support your efforts to reach this goal.

Sincerely,

MATTHEW B. COFFEY, *Executive Director.*

AUTOMOTIVE SERVICE INDUSTRY ASSOCIATION,
Chicago, IL, June 8, 1984.

Hon. JOHN D. DINGELL,
Chairman, Energy and Commerce Committee,
Rayburn House Office Building, Washington, DC.

DEAR CHAIRMAN DINGELL: The Automotive Service Industry Association (ASIA), representing over 8,500 independent automotive wholesalers, warehouse distributors, heavy-duty parts and equipment distributors, automotive electric service distributors, manufacturer's representatives, manufacturers and remanufacturers of automotive replacement parts, tools, equipment, chemicals, paint, refinishing materials, supplies and accessories has several areas of concern with H.R. 5640.

ASIA believes the funding goals are over ambitious and that "waste end" taxes are neither appropriate nor feasible. This type of tax gives our foreign competitors one more edge in a market already tilted in their favor.

Other concerns are: 1) The extent that remedies in the law as to "How clean is clean?" go beyond what is necessary for protection of health and the environment. 2) The federal cause of action contained in Title II legislates tort law standards in a harsh and unfair manner by specifying a standard of "strict, joint and several" liability that could force a party responsible for only a small portion of a waste site release to be liable as if he had caused the whole release. 3) The joint and several liability in site cleanups should be more fairly apportioned using guidelines to ensure fairness. 4) The post-closure liability fund should be retained to provide alternative public protection from closed facilities.

It is our understanding that perfecting amendments will be offered to correct some of these inequities. It is our hope that you and your committee will fully explore these issues and support amendments which could improve and make this legislation more equitable and workable.

ASIA appreciates your help and interest in legislating a reasonable, workable law to benefit the entire country.

Sincerely,

RICHARD F. TURNEY.

EXCERPT FROM THE TESTIMONY OF RICHARD C. FORTUNA, EXECUTIVE DIRECTOR, HAZARDOUS WASTE TREATMENT COUNCIL, BEFORE SUBCOMMITTEE ON COMMERCE, TRANSPORTATION, AND TOURISM, ENERGY AND COMMERCE COMMITTEE, HOUSE OF REPRESENTATIVES REGARDING SUPERFUND REAUTHORIZATION, NOVEMBER 16, 1983

HOW CLEAN IS CLEAN

There appears to be an interminable debate about the levels of cleanup that should be required at Superfund response sites. While it is clear that the diverse and dynamic nature of remedial response actions requires the delegation of substantial latitude to the Agency and in turn to the site manager, there is the need to establish a recognized starting point for such determinations.

The Subcommittee may want to examine the utility of establishing a system of rebuttable presumptions against existing standards as the starting point for the evaluation of appropriate levels of cleanup at Superfund sites. It would be necessary to provide guidance in situations where more than one standard could be applied, and to establish criteria which would have to be met in order to overcome the presumption in favor or existing standards.

POST-CLOSURE LIABILITY TRUST FUND

The Post-closure Liability Trust Fund (PCLTF), which began collecting fees on land disposed wastes last month, was a last minute addition to Superfund, and has substantial implications for the maintainence and operation of both Superfund and RCRA. As currently drafted, the provision allows a land disposal facility owner/operator that has received a final RCRA permit and which has closed his facility to transfer all site liability, excpet for monitoring and maintainence, to the PCLTF not later than five years after closure of the facility upon a demonstration that there is no substantial likelihood that offsite migration or release of any hazardous substances will occur.

The question in the view of the Council is not whether there should be such a fund, but rather what is the appropriate structure of and responsibility for such a fund. While legitimate questions of insurability are raised in the absence of such a fund, the policy in establishing such a fund must make it abundantly clear that it is intended to cover exceptions rather than to be a standard expectation by which land disposal facilities relieve themselves of liability. The fund must also be structured to insure adequate funding and to encourage the best methods of land disposal rather than those which will merely suffice for purposes of liability transfer.

The issues attendant to the PCLTF are under active Council consideration at this time. In light of the possibility of revenue shortfalls in the PCLTF, and given the potential disincentives for advancing the state-of-the-art art of land disposal in the event of unbridled liability transfer, the Council believes that the Subcommittee must give serious consideration to revising the current structure of the fund, particularly with respect to extending the time in which the facility owner/operator would retain liability prior to fund transfer.

In addition to the direct disincentives to protective land disposal methods that could be created by such a potential subsidy, there are several other issues raised by the existence of the PCLTF in its current form:

The fund is currently limited to a maximum of $200 million. In light of the facts that the liabilities are potentially unlimited and that the fund could begin to assume liability for closed facilities in less than five years, it is highly questionable that $200 million would or will cover the liabilities of such a fund;

In the event that more claims were made on the fund than it could handle, and given that the facility owner would be shielded from liability, who or what would be available to provide relief to a third party. The Superfund itself is not currently available to cover such a contingency. Under these circumstances it would appear that due process would be denied to a person seeking remedial relief;

Currently many surface impoundments that are being used for storage could be changed to disposal impoundments at closure. A storage impoundment would not have collected post-closure fees because the wastes were not supposed to remain there at closure, but would it then be eligible for the PCLTF?;

Class I hazardous waste injection wells (deep wells) are not required to carry the third party liability coverage that is a part of interim status for other RCRA facilities. It is unclear at this point whether such facilities are required to pay into the PCLTF, and moreover, whether they could become the responsibility of the PCLTF. In light of the large volumes of wastes that are injected into deep wells each year, one claim by such a facility could dramatically alter the projected composition and operation of the fund;

The collection of fees on the basis of dry weight ton is confusing and is contributing to a likely undercollection of PCLTF fees. Most firms are simply collecting such fees on the basis on net rather than dry weight which represents a simpler and more reliable method of collecting fees and monitoring payments into the PCLTF.

DEPARTMENT OF THE TREASURY

OFFICE OF THE SECRETARY

HAZARDOUS SUBSTANCE LIABILITY INSURANCE

Agency: Department of the Treasury.

Action: Determination on feasibility of private insurance as an alternative to the Post-Closure Liability Trust Fund (PCLF)

Summary: Under Section 107(k)(4)(B) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980" (Pub. L. 96-510, December 11, 1980) and pursuant to the delegation of authority in Executive Order 12316 (August 14, 1981) the Secretary of the Treasury has determined that it is not feasible to establish or qualify an optional system of private insurance for post-closure financial responsibility for hazardous waste disposal facilities at this time.

Date: Effective on the date the Secretary of the Treasury makes the determination.

For further information contact: Mark G. Bender, Room 3025, Department of the Treasury, 15th & Pennsylvania Avenue, NW., Washington, D.C. 20220.

Supplementary information: Section 107(k)(4)(A) of the "Comprehensive Environmental Response, Compensation and Liability Act of 1980", or CERCLA, directed the Secretary of the Treasury to undertake a study and make a report on the "feasibility of establishing or qualifying an optional system of private insurance for post-closure financial responsibility for hazardous waste disposal facilities." That report was completed and submitted to Congress in March 1982 (see Part Three, Chapter 6, "Hazardous Substance Liability Insurance," Department of the Treasury, March 1982). It was concluded that at this time private insurance is not a feasible alternative to the Federally-administered Post-Closure Liability Trust Fund established by Subtitle C of Title II of CERCLA.

As required by Section 107(k)(4)(B), the reasons for the determination are reviewed below in a recapitulation of the Secretary's report.

I. THE POST-CLOSURE LIABILITY FUND

The Post-Closure Liability Fund provided for by CERCLA was the end product of major uncertainties faced by Congress in its efforts to provide for new and safe hazardous waste disposal facility capacity. Primary among these uncertainties were: (1) The ability and willingness of private industry to establish new hazardous waste facility capacity under RCRA; (2) the acceptability of new hazardous waste sites by local communities; (3) the distribution of responsibilities for the "perpetual" care and liability attendant to permitted sites; and (4) the availability and affordability of private insurance as a source of financial assurance for such sites.

The Post-Closure Liability Fund addresses many of these concerns by providing funds for the monitoring and maintenance and the assumption of liabilities of properly closed and permitted hazardous waste facilities in perpetuity. Specifically, the PCLF is designed to assume (1) all of the liability attendant to a "qualifying" hazardous waste facility at the end of the 5-year closure period (liability remaining with owners/operators during closure), and (2) the costs of monitoring and maintenance at the end of a 30-year period spanning both closure and post-closure.

II. PRIVATE INSURANCE FOR THE POST-CLOSURE PERIOD

The question at hand is whether or not private insurance as an alternative to the PCLF will be available and affordable for the owners or operators of hazardous waste facilities in the post-closure period. Technically speaking, private insurance would have to extend a range of coverage comparable to the PCLF if it were to be considered as a feasible option or substitute for the PCLF. Given the current structure of the PCLF this means that private insurance would have to meet at least three major criteria.

First, private insurance would have to be available to the owners or operators of all hazardous waste facilities that met the eligibility standards of Section 107(k)—i.e., having been operated under RCRA permit, having been closed in accordance to "plan," and having been maintained for five years after closing without incident. Second, private insurance would have to accept all of the liability of facility owners or operators as imposed by CERCLA and "any other law" in perpetuity and without possibility of termination, this liability becoming effective the fifth year after facility closure. Finally, private insurance would have to provide the financial wherewithal for the monitoring and maintenance of facilities starting thirty years after closing and continuing in perpetuity.

Impediments to private insurance

Some of the more significant impediments to the use of private insurance as a substitute for the PCLF are (1) the scope and nature of liability, (2) the difficulties of risk assessment, (3) the need for "perpetual" coverage, and (3) the potential for adverse risk selection.

Liability Considerations. For private insurance to substitute for the PCLF it would have to provide coverage for all claims actionable under "superfund" as well as all claims actionable under any other (common or statutory) law. Insurance coverage therefore would have to extend to all costs of removal or remedial action incurred by Federal or State authorities consistent with the National Contingency Plan, other necessary costs of response incurred by any other person consistent with the National Contingency Plan, damages for injury to, destruction of, or loss of natural resources, and, in addition, liabilities arising from all personal injury and property damage claims of third persons.

Accordingly, the problem of uncertain and potentially unlimited liability may be even greater under the PCLF standard than is the case under "superfund" *per se.* For one thing, a broader range of liabilities would be specifically open to action under Federal statute. For another, if private insurance were to substitute for the PCLF as now constituted, the owners or operators of "qualified" facilities could ultimately "walk away" from all liabilities. This means that the private insurance company must be prepared to "stand in the shoes" of the owner/operator, and in so doing render meaningless the normal limits, exclusions and defenses contained in standard insurance policies. If such a risk is assumed at all it would probably require significantly higher, perhaps prohibitive, premiums.

Risk Assessment. The problem of risk assessment as a barrier to the insurability of closed hazardous waste facilities can be expected to vary over time, being of minimal consequence at the time of closing but growing in importance throughout the post-closure period. The fact that owners or operators must monitor and maintain closed sites for a period of thirty years is an assuring factor in this respect. But once beyond this period there are no requirements that owners/operators undertake the expense of loss prevention measures, and the risks of facility deterioration will be inceasing with time. Insurers have argued that the difficulties of such long-term risk assessment would be a significant barrier to private insurance as a substitute for the PCLF.

Perpetual Coverage. Pollution insurance coverage is currently extended on a "claims-made" basis only. But, significantly, the claims-made policy will honor only those claims presented during the effective term of the policy itself (unlike the occurrence-based policy, which will honor claims traceable to an incident which occurred while the policy was in effect whenever such claims are presented). Since this term is generally set for one year at a time, and since the policy may not be reissued for any number of reasons at the end of its term, the claims-made policy is uniquely unsuited to provide the type of perpetual coverage which is to be made available by the PCLF.

For one thing, the claims-made policy requires both an insurer willing and able to underwrite the risk of the closed facility year-after-year in perpetuity and an insured willing and able to pay premiums on a closed facility year-after-year in perpetuity. Practically speaking, these conditions may be difficult if not impossible to meet. Insurers as well as insureds may cease to exist over time, leading to temporary or even permanent interruptions of facility insurance coverage. Another likelihood is that as closed facilities deteriorate over time the underwriting risk will increase commensurately, forcing insurers to protect themselves in terms of ever-higher premiums. Such a cycle of events could lead rapidly to an affordability problem for insureds which effectively interrupts insurance coverage. Finally, the increasing burden over time of providing for the insurance coverage of a closed facility may lead some owners or operators to "abandon" that facility. In all of these cases the financial responsibility for the closed facility is likely to revert to the public sector.

Adverse Risk Selection. Another frequently-cited problem which may arise if a private insurance option to the PCLF is qualified is that of "adverse risk selection." The most common argument is that the higher-risk facilities will use the PCLF while lower-risk facilities will rely on private insurance. If this type of situation were to develop, it is argued that the financial integrity of the PCLF would be undermined, since fees collected from low-risk facilities would not be available to compensate for the disproportionate exposure of the high-risk facilities.

Variations on private insurance

The purchase of commercially-provided insurance is not the only insurance option open to potential insureds. Other private-sector insurance arrangements may include self-insurance, captive insurance companies, pooling of risks, assigned risk pools, and so on. But attempting to use any of these options as an alternative to the PCLF encounters many of the same shortcomings apparent in the analysis of the commercial insurance market.

For example, self-insurance as an option to the PCLF may be attractive to certain larger and financially-strong companies. It can be argued that many such companies are as financially "secure" as well-known insurers and that the precedent of self-insurance for pollution risks already exists under Federal regulations. However, even the strongest of firms is unlikely to be able to guarantee coverage of potentially unlimited liability in perpetuity: potential liabilities may well exceed available assets and in changing economic circumstances any firm may cease to exist, effectively terminating insurance coverage.

Captive insurance companies are attractive to some corporations as a means of insuring the risk exposures of the parent on a more cost-effective basis. But for all intents and purposes the captive insurer must operate as would other insurers in the same jurisdiction. Therefore, while some advantages might be realized in terms of affordability and the capability of the insurer to ultimately accept all responsibility for the closed hazardous waste site, the captive is really no better positioned with respect to the major problems of unlimited liability or existence in perpetuity than are commercial insurers.

The pooling of risks as is done currently with the P & I Associations and the recently-formed Pollution Liability Insurance Association would undoubtedly ease the burden of a pollution incident for any given underwriter, but, here too, comparability with the PCLF would be difficult if not impossible to achieve. Again, post-closure liability is uncertain and potentially unlimited, an underwriting problem no more acceptable to mutual associations than to individual insurance companies. And an insurance pool is not much more likely to commit itself to the perpetual, noncancellable coverage of a closed facility than is an individual insurer. Nor can it be guaranteed that all qualified facilities would be accepted as an insurable risk by the pool.

The same insurability problems which pertain to commercially-purchased insurance, self-insurance, captive insurance companies, and the pooling of risks would extend to one degree or another to most, if not all, purely private sector post-closure financial assurance options.

III. MEASURES TO FOSTER PRIVATE POST-CLOSURE INSURANCE

The analysis suggests that private insurance as a substitute inthe entirety for the PCLF may not be feasible in the foreseeable future. The scope and nature of the coverage provided by the PCLF is simply too distinct from that of the traditional property-casualty insurers to be readily assumed by the latter. Therefore, the development of a significant role for private insurance means that either (1) the social goals in support of which the PCLF is designed be scaled back so as to allow substitution in the entirety by private insurance, or (2) the role of the PCLF be redefined so as to allow achievement of the same goals in concert with as much private insurance participation as is feasible at any given point in time.

Scaling back social goals

Under CERCLA the owners or operators of permitted hazardous waste disposal facilities can be exempted from the payment of the PCLF tax if they enroll in any private insurance plan that is deemed to qualify as a substitute for the PCLF. But for all of the reasons discussed in detail previously, private insurance plans are unlikely to be able to substitute for the PCLF at this time. Thus the mutually exclusive insurance arrangements currently called for—i.e., either pay the tax and insure with the PCLF or arrange to purchase equivalent private insurance in lieu of the tax—most probably will leave potential insureds with no choice but the PCLF.

It would seem that as long as the "either/or" insurance arrangement implied by CERCLA remains extant, private insurance as an option may be feasible only if compromises are made, or expectations lowered, with respect to the scope and nature of the coverage required. In short, the insurance coverage requirements would have to correspond much more closely to what the private market reasonably can be expected to provide. As a minimum, therefore, the public policy compromises probably would involve the acceptance of the following: (1) limits on liability for private parties; (2) provisions for cancellable and nonperpetual insurance contracts such as the claims-made policy or the limited-term annuity; and (3) the retention by facility owners and operators of all responsilibity for insuring, monitoring, and maintaining their facilities in perpetuity.

However, if measures such as these were to be taken in order to qualify private insurance for post-closure purposes a major complicating factor might be introduced. This complication would be in the form of an extraordinary asymmetry between the coverage available from private insurers and that of the Federally-administered PCLF. Presumably, potential insureds would still have to choose between either the PCLF or private insurance. But the asymmetrical coverages would undoubtedly add to problems of adverse risk selection, cyclical market capacity, uncertain PCLF funding, non-uniform coverage of insured facilities, and overall market instability as insurers and insureds sought out optimum responses to ever-changing tax/premium/coverage relationships.

The cost of bringing a reasonable amount of stability, predictability, and uniformity of coverage to the post-closure insurance situation depicted above would be the diminution of the coverage of the PCLF to something more consistent with private market capabilities, such that the alternative insurance programs would be truer substitutes one for the other. But while doing this may provide for a viable alternative to the financing system of the PCLF, it would also involve a scaling back of the social goals implicit in the PCLF and this would be a matter for serious Congressional consideration.

Redefining the Post-Closure Liability Fund

Private insurance participation in post-closure may well be encouraged and fostered without undue sacrifice of social goals if the functions of the PCLF were to be redefined in ways which served to supplement—rather than supplant—private coverage. For example, the tax-financed PCLF could be altered so as to serve as a "last resort" for claimants. In this case the owners or operators of facilities would continue to demonstrate financial responsibility for closed facilities by means of deductibles, private insurance, and so on. In the event that claims exceeded the limits of the financial responsibility requirements established (by statute or regulation) for owners/operators the additional compensation would be provided by the "fund". The Federally-administered fund might also assume all responsibility for closed facilities at that point in time when private insurance were no longer available (e.g., the termination of the 30-year monitoring and maintenance period).

Alternatively, the PCLF might be restructured to assume the role of a "reinsurer". In this case private insurers might be much more willing to underwrite insurance for closed facilities if they in turn can spread the risk to another party through reinsurance. As noted in earlier analysis, private reinsurance arrangements, such as the Pollution Liability Insurance Association, would encounter many of the same problems with post-closure as any individual insurer. But this would not be the case for a government-sponsored reinsurance program. Thus the PCLF might be designed to pick up any "excess of loss" of private insurers over and above stipulated limits; another variation might have the PCLF provide "stop loss" coverage in which event the primary insurer is protected against losses exceeding an agreed upon percentage.

Finally, the PCLF could be given the role of serving in perpetuity as the "trustee" or "administrator" of all post-closure sites, leveraging its own funds by purchasing private insurance coverage in the commercial market. In this case liability limits would be established and private insurers would be invited to bid on an annual basis for the coverage of closed sites. Loss exposures beyond the established limits, catastrophic losses, and "uninsurable" sites would remain the total responsibility of the government fund, in addition to the payment of premiums for private coverage purchased and the monitoring and maintenance of sites.

Unfortunately, as it turns out none of the combined public/private insurance programs which seem reasonable at this point in time provide a clear and separate alternative to the need to finance via taxes a PCLF-type fund. In the cases of the PCLF as a "last resort" or as a "reinsurer" there would be a need for industry to purchase private insurance as well as finance the government fund (presumably at a new rate of taxation). Whether or not such a combination of payments would be more cost effective than the current PCLF tax alone is not now determinable. And in the case of the PCLF acting as "administrator" industry still would be obliged at least to make a tax payment to finance the fund.

Standards for Private Insurance.

All of the foregoing measures to foster private insurance participation in post-closure could necessitate the establishment of "qualifying" standards or criteria. Until further experience is gained with respect to the nature of the risks and the losses incurred it seems reasonable to expect insurers to be able to respond at least within the limits of the current requirements for operating facilities. At least initially, therefore, any standards which might be developed for private post-closure insurance could probably parallel closely existing RCRA requirements.

IV. FINDINGS AND CONCLUSIONS

For commercially-purchased private insurance to substitute for the coverage extended by the PCLF, at a minimum it would have to meet the following standards: First, private insurance would have to be available for each and every qualifying hazardous waste site (at the affordable premium). Second, the private insurers would have to be willing to accept an uncertain and potentially unlimited exposure to liability as defined under CERCLA and "any other law". Third, private insurance would have to provide financial assurance for liability and, after thirty years, monitoring and maintenance in perpetuity. Finally, in order to allow the owners or operators of qualified facilities to "walk away" from all future responsibilities for such sites, private insurers would have to "step into the shoes" of owners or operators and effectively assume all managerial responsibilities for insured sites.

Nothing in the materials submitted for this study suggested that this type of comprehensive private insurance option for the PCLF is feasible now or in the foreseeable future. This observation applies equally to commercially-purchased insurance and insurance variations such as self-insurance, captive insurance, and others.

Determination. Under Section 107(k)(4)(B) of CERCLA the determination of whether or not it is feasible to qualify a private insurance option for post-closure financial responsibility is to be made "after a public hearing." On May 5, 1982, a public notice was published (See 47 FR 19504) stating that a public hearing on this issue would be held on June 2, 1982 in the Main Treasury Building, Washington, D.C., if interested persons wished to make an oral presentation. The notice also stated that any written data that interested persons wished to submit in lieu of making a presentation at a hearing would be considered, provided that such comments were received by June 9, 1982.

Since no person requested to make an oral presentation, a public notice of cancellation of the scheduled public hearing was published (See 47 FR 23842). Since no materials or additional information which have been presented since the publication of the Secretary's report would cause any significant alteration in the findings of that report, the Secretary of the Treasury determined that it is not feasible to establish or qualify an optional system of private insurance for post-closure financial responsibility for hazardous waste disposal facilities at this time.

MARK G. BENDER,
Acting Deputy Assistant Secretary, Office of Financial Institutions Policy.

Mr. CONABLE. We will now hear from Mr. Bode, general counsel of the Energy Recovery and Conservation Association.

STATEMENT OF MARK J. RIEDY, SPRIGGS, BODE & HOLLINGSWORTH, WASHINGTON, DC, REPRESENTING THE ENERGY RECOVERY AND CONSERVATION ASSOCIATION

Mr. RIEDY. Mr. Chairman and members of the committee, I am substitute for Mr. Bode today. I am Mark J. Riedy of the law firm of Spriggs, Bode and Hollingsworth in Washington, DC. I am presenting this statement on behalf of the Energy Recovery and Conservation Association.

Members of the Energy Recovery and Conservation Association gather, treat, and beneficially consume hazardous waste in industrial furnaces. In this manner, the energy and material components of hazardous waste are recovered in environmentally secure processes. Indeed, the temperatures, residence times, and turbulence associated with consumption of waste-derived fuels in industrial furnaces exceeds those of EPA licensed incinerators.

Deployment of wastes in industrial processes conserves energy and recovers usable materials. These were some of the fundamental purposes Congress sought to advance when it enacted the Resource Conservation and Recovery Act, RCRA. In that act, Congress found that:

> Methods are available to separate usable materials from solid waste, and * * * the recovery and conservation of such materials can reduce the dependence of the United States on foreign resources.

The utilization of hazardous wastes as a fuel component in industrial furnaces represents a relatively new and exciting technology. Millions of tons of hazardous wastes that otherwise would be discarded or consigned to open dumps and landfills now can be beneficially utilized. The technology developed and employed by ERCA members in this area demonstrates that the national concerns about deployment of hazardous wastes can be successfully resolved.

The waste end tax provisions in H.R. 5640, however, could cripple this fledgling industry. Section 503(a) of H.R. 5640 imposes a waste end tax on the disposal of hazardous wastes. As drafted, however, that tax appears to reach not only the disposal of hazardous wastes, but also the treatment, recycling and recovery of hazardous wastes. The tax thus operates to penalize and discourage environmentally beneficial recovery and recycling activities. A major objective of RCRA, as set forth in the House Committee Report, to "increase reclamation and reuse practices," is thereby defeated.

We submit with this testimony for the record, for consideration of this committee, language that clarifies that the waste end tax of section 503(a) would apply only to the disposal of hazardous wastes—not their reuse or recovery. The suggested amendatory language retains, thereby, the incineration exemption from the tax, even though the language at proposed section 4682(1) is deleted. This necessarily follows because incineration does not constitute disposal under applicable statutory definitions. It is the inclusion of the exemption clause in section 503(a) at the proposed section 4682(1) which creates the unintended ambiguity about the reach of the tax.

Mr. Florio earlier had expressed concern about the destruction of hazardous wastes in lower grade boilers. He suggested that hazardous wastes used in this manner should not be exempt from the waste end tax. The committee should appreciate that EPA will promulgate a proposed rule shortly which would prohibit consumption of waste-derived fuels in residential and commercial boilers. That rule would regulate all other applications of waste-derived fuels.

We suggest that EPA and not this committee decide which recovery and reuse activities are environmentally desirable. Congress should not destroy an exciting new industry because it believes a few recovery applications are undesirable.

In conclusion, members of the Energy Recovery and Conservation Association recover energy and material from hazardous wastes in environmentally secure industrial furnaces. The waste end tax, as now fashioned, would destroy this promising new technology.

We urge you to adopt the proposed language to clarify that the waste end tax encompasses only the disposal, and not the recovery and reuse, of hazardous wastes.

Thank you.

[An attachment to the statement follows:]

"SEC. 4681. IMPOSITION OF TAX.

(a) IN GENERAL.-There is hereby imposed a tax on the disposal of any hazardous substance, if such disposal is regulated pursuant to ~~required to be carried out in compliance with~~ subtitle C of the Solid Waste Disposal Act.

"(b) AMOUNT OF TAX.-The amount of the tax imposed by subsection (a) shall be-

"(1) in the case of any hazardous substance for which there is in effect, under regulations section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of one pound or less-

"(A) $30 for each metric ton which is not disposed of by underground injection; or

"(B) $15 for each metric ton which is disposed of by underground injection;

"(2) in the case of all hazardous substances for which there is in effect, under regulation section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of more than one pound or for which no reportable quantity has been specified under such regulations-

"(A) $10 for each metric ton which is not disposed of by underground injection; or

"(B) $5 for each metric ton which is disposed of by underground injection; and

"(3) in the case of any mixture of any hazardous substance referred to in paragraph (1) and any hazardous substance referred to in paragraph (2), for purposes of determining the applicable rate under this subsection, the entire mixture shall be deemed to be a hazardous substance referred to in paragraph (1).

"(c) LIABILITY FOR TAX.-The tax imposed by subsection (a) shall be paid by-

"(1) in the case of disposal at a facility for which a permit is in effect under subtitle C of the Solid Waste Disposal Act, the owner and operator for such facility, and

"(2) in the case of disposal which is not in compliance with subtitle C of the Solid Waste Disposal Act ~~other than at such a facility~~, the person disposing of the hazardous substance.

"(d) TERMINATION.-The tax imposed by this section shall not apply after September 30, 1990.

"SEC. 4682. EXEMPTIONS.

"The tax imposed by section 4681 shall not apply to the following:

"~~(1) The disposal of any substance by incineration in accordance with the standards applicable to incineration facilities permitted under subtitle C of the Solid Waste Disposal Act.~~

"~~(2)~~ (1) The disposal of any substance by any person in the course of carrying out any removal or remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"~~(3)~~ (2) The disposal of any solid waste which is required to be studied under subsection (f) or (p) of section 8002 of the Solid Waste Disposal Act unless, after the completion of the studies, a law is enacted subjecting such waste to the tax imposed by section 4681.

SEC. 4683. DEFINITIONS AND SPECIAL RULES.

"(a) IN GENERAL.-For purposes of this subchapter-

"(1) HAZARDOUS SUBSTANCE.-The term 'hazardous substance' has the meaning given such term by section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(2) OTHER TERMS.-The terms 'waste,' hazardous waste,' 'storage,' and 'disposal' have the respective meanings given such terms by section 1004 of the Solid Waste Disposal Act.

"(3) REPORTABLE QUANTITY.-The term 'reportable quantity' refers to the notification requirement of section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(4) UNDERGROUND INJECTION.-The term 'underground injection' has the same meaning as when used in the Safe Drinking Water Act.

"(5) TON.-The term 'metric ton' means 1,000 kilograms.

Mr. GIBBONS [presiding]. Thank you.

Mr. Mraz.

STATEMENT OF PAUL J. MRAZ, PRESIDENT, SPECTRON, INC., ELKTON, MD, AND PRESIDENT, NATIONAL ASSOCIATION OF SOLVENT RECYCLERS

Mr. MRAZ. Mr. Chairman, Mr. Conable, Mr. Moore, I am Paul J. Mraz. I am president of Spectron, Inc. of Elkton, MD, a company which reclaims spent solvents for beneficial reuse. I am also president of the National Association of Solvent Recyclers, a nationwide organization of approximately 50 independent companies. Our primary business is reclamation of pure solvents from used solvent streams and recycling of those recovered solvents back into industrial use.

My remarks here today are on behalf of that association. Incidentally, between Mr. Merrigan and I, I think we do cover the recycling industry pretty well as it is practiced today.

I am very much heartened by the sentiments I have heard in support of recycling and the awareness of everyone of the importance of preserving the generators' incentive to recycle. I am further encouraged that the joint committee report of the Joint Committee on Taxation on page 37 addresses the disposal, treatment and recycling of hazardous waste should be exempt from tax, and only the untreated hazardous residuals from these processes should be subject to tax upon ultimate disposal.

Nevertheless, the reason we are here is that we are requesting that the committee make what we believe is a technical adjustment to Section 503(a), which because of drafting ambiguity could be interpreted as a major economic disincentive to recycling. Because section 503(a) imposes a waste end tax on, quote, "disposal," unquote, of hazardous substances but exempts incineration of hazardous substances from the tax, there remains the possibility that a mistaken inference will arise that all handling of hazardous wastes, including recycling and reuse, is disposal and therefore subject to the tax.

Such a tax would disrupt the fragile economics of recovering spent solvents and discourage an activity which I think Congress has repeatedly recognized and encouraged as being environmentally sound and a preferable alternative to disposal. When I say "fragile economics," I am going to turn to another portion of my paper and discuss that a little.

Recycling is an industry sensitive to basic economics as well as environmental concerns. The only reason that our customers choose to use our recycling services is that they can pay less to recycle their used materials than they pay for its disposal and the purchase of new materials. That is the only reason they will do it.

Were a waste end tax of $30 per metric ton to be applied to recycled solvents, the generator would have to pay an extra 10 cents per gallon for returned solvents if he chose that option. That cost may be controlling and, in many cases, it could tilt that decision toward outright disposal. Because of the circular quality of reclamation, any waste end tax and recovery of solvents would be assessed repeatedly, compounding the disincentive, as others have said here today.

We could not believe this is the result intended by Congress, and we urge the committee to amend section 503(a) to properly reflect the original intent of Congress to tax only those waste management techniques which result in disposal, as that term is used in the RCRA Act. The amendatory language is appended to our statement.

In closing, I find we are in substantial agreement with what Congressman Florio was saying this morning. He said that the bill should provide an economic incentive to reduce wastes and discourage land-based disposal. That is precisely in line with what NASR, National Association of Solvent Recyclers, is achieving in its solvent recycling industry.

Let me give you a little picture of how the recycling thing works with respect to solvents. We will recycle directly as refined solvent between 80 percent and 85 percent of the hazardous wastes we handle. Of the remaining 15 to 20 percent, as much as three-quarters of it is used to produce solvent-based fuel which is used in the cement manufacturing and steel manufacturing process and which becomes assimilated chemically with these production processes.

Only about 3 to 5 percent residual ultimately ends up as a waste material for which land disposal or some other disposal method is required. That is a reduction ratio of at least 20 to 1.

Congressman Florio cautioned this morning against so-called recycling that is merely a facade for waste disposal. He referred to fuel for industrial boilers to which he said was not true recycling. I am pointing out that fuel to an industrial boiler does not use the materials that we produce. Instead, our solvent-based fuels are used in industrial blast furnaces and cement kilns, and these are the industrial furnaces—not boilers. There is an important distinction there to be made.

Congressman Florio stated that the important environmental issue of the next decade is the cleanup of toxic waste dump sites. We are in agreement with that. And, like Congresswoman Schneider said, we would add that another important environmental issue of the next decade is the avoidance of the same disposal practices that brought us to these present circumstances. Obviously, recycling is that preferred alternative.

Thank you.

[The prepared statement follows:]

STATEMENT OF PAUL J. MRAZ, ON BEHALF OF THE NATIONAL ASSOCIATION OF SOLVENT RECYCLERS

INTRODUCTION

My name is Paul J. Mraz; I am President of Spectron, Inc. of Elkton, Maryland, a company which reclaims spent solvents for beneficial reuse. I am also President of the National Association of Solvent Recyclers, a nationwide organization of approximately 50 independent companies whose primary business is the reclamation of pure solvents from used solvent streams and the recycling of these recovered solvents for industrial use. My remarks are presented on behalf of the Association. I am accompanied by the Association's General Counsel, Austin P. Olney, partner of the law firm, LeBoeuf, Lamb, Leiby & MacRae.

SUMMARY

The National Association of Solvent Recyclers welcomes the opportunity to testify before the Committee on the potential impact of the waste end tax provisions of H.R. 5640 on recycling activities in general and on our membership in particular. Very simply, we are requesting that the Committee make what we believe is a technical adjustment to Section 503(a) which, because of drafting ambiguity, could be interpreted as a major economic disincentive to recycling. Because Section 503(a) imposes a waste end tax on "the disposal" of hazardous substances but exempts incineration of hazardous substances from the tax, there is the possibility that a mistaken inference will arise that all handling of hazardous waste, including recycling and reuse is "disposal" and therefore subject to the tax. Such a tax would disrupt the fragile economics of recovering spent solvents and discourage an activity which I think Congress has repeatedly recognized and encouraged as being environmentally sound and a preferable alternative to disposal. Furthermore, because of the circular quality of reclamation, any waste end tax on recovery of solvents would be assessed repeatedly, compounding the disincentive. We do not believe that this is the result intended by Congress and urge the Committee to amend Section 503(a) to properly reflect what we believe was the original intent of Congress to tax only those waste management techniques which resulted in "disposal" as that term is used in the Resource Conservation and Recovery Act. Amendatory language is appended to our statement.

THE RECYCLING INDUSTRY

The recycling of industrial solvents has been a viable and necessary commercial enterprise for almost as long as the chemical industry has existed. NASR includes members whose businesses were started as early as 1937. The services our members provide their customers range from custom toll processing of generator-owned material, returned to the owner for a processing fee, to the blending of solvent based fuels. The workhorse process is flash distillation in which a used solvent is boiled, the boiled vapors condensed as a clean solvent and the residue, the still bottom, blended to produce a solvent-based fuel. The material we process is classified as hazardous waste by the characteristics of ignitability or by source or composition. Many manufacturing processes would be prohibitively expensive to operate were it not for the ability to recycle valuable processing materials. Common examples of recycling in process and manufacturing industries are:

- Acetate-based film is cast from a solution in acetone and ethyl alchohol. The cast film is dried by evaporating the solvent; the solvent is recycled in the process.

- Penicillin is extracted from a fermentation broth by amyl acetate. The amyl acetate is recycled after the penicillin has been recovered.

- Solvents such as furfural, propane and dichlorethyl ether are used in the manufacture and refining of lubricating oils and then recycled.

- A number of solvents are used to extract caffine from coffee and flavors and fragrances from a wide-range of sources. After the caffine or the flavors have been recovered, the solvent is recycled.

- Drycleaners use solvents, typically the nonflammable chlorinated solvents, to clean water-sensitive fabrics.

- Paint manufacturers and the makers of other types of coatings, use "wash solvents" to clean their equipment between batches of different colors.

Not only does the solvent reclamation business recover solvents and restore them to their original product quality, but the wastestream generates a secondary product which cannot meet the standards for virgin material but which has a high BTU value. This material is generally destined for use in industrial applications, such as in steel blast furnaces or in cement kilns. The strictly controlled physical and chemical parameters of the blast furnace and the cement kiln operations, coupled with extensive environmental regulations, assure complete and beneficial destruction of the solvent fuels.

A well-run full service recycler should have a minimum amount of totally unprocessable and unuseable residues that would be disposed of at EPA-regulated and approved disposal facilities.

From this brief description of the functions of the recycling industries, it should be clear that the valuable contribution of the industry is not only the reclamation of valuable resources, but the selection of environmentally optimal waste management practices.

A major objective in waste management is source reduction, specifically in the context of minimizing the amount of material that must ultimately be disposed of in the land. Clearly recycling contributes to meeting this objective

THE ECONOMICS OF RECYCLING

Recycling is an industry sensitive to basic economics as well as environmental concerns. The only reason our customers choose to use our services is that they can pay less to recycle their used material than they pay for its disposal added to the purchase of new. Were a waste end tax of $30.00 per metric ton to be applied to recycled solvents, then the generator would have to pay an extra $0.10 per gallon for his returned solvents if he chose the recycling option. That extra cost would, in many cases, tilt the decision towards outright disposal.

Also, the cost of recovery and recycle is linked with the cost of handling the recovery residuals. Since most residual has considerable heat value, the cost of recycling can be reduced if the residuals' heat value can be beneficially realized by producing the solvent-based fuel for use in an industrial furnace such as a cement kiln or a blast furnace. Yet, this is a use for which conventional fuels -- oil and coal -- also compete. No matter how environmentally attractive it may be to use a solvent-based fuel in place of coal to manufacture cement, this will not happen if the plant operator cannot achieve some economic benefit.

Consider the use of coal as opposed to a solvent-based fuel to fire a cement kiln. At today's spot prices for coal -- namely, $35.00 per ton -- a typical solvent-based fuel is worth about $0.135 per gallon on an equivalent BTU basis.*/ Were the waste end tax of $30.00 per metric ton to be applied to the solvent-based fuel, it would be necessary to add another $0.11 per gallon to the selling price of the fuel. Such taxation would seriously damage the economics for recycling as opposed to direct disposal by rendering the cost of solvent-based fuel too high relative to coal. The net result would be the creation of a new hazardous waste disposal problem, which, because of unfavorable economics in the recovery and recycle option, would be resolved through some less environmentally desirable method of disposal-- primarily land disposal. And only one cement plant using a solvent-based fuel as 20 percent of its heating material can typically burn 20,000 gallons of solvent-based fuel per day. NASR does not believe Congress intended to impede by selective taxation a practice, e.g., recycling, that it has sought to encourage under the Resource Conservation and Recovery Act.

---

*/ Assume one ton of coal yields 26,000,000 BTU and one gallon of a solvent-based fuel yields 100,000 BTU.

THE WASTE END TAX PROPOSAL IN H.R. 5640

We believe that Section 503(a) of H.R. 5640, with some minor technical modifications which we have proposed in the attached amendment, establishes a sound basis for not only generating revenue to fund clean-up activities, but a means to discourage land disposal and other environmentally unsound methods of hazardous waste disposal by selective taxation of disposal.

Section 503(a) establishes the general taxing principle that disposal of hazardous waste gives rise to a taxable event. The term disposal is a term of art defined in Section 1004 of the Solid Waste Disposal Act. Disposal means the discharging, depositing, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on land or water so that the waste or any constituent may enter the environment. It is clear from this general definition that the act of recycling special solvents is not a taxable activity.

The confusion stems from the exemption section (proposed Sec. 4682) which states that the tax shall not apply to the disposal of any substance by incineration. Although this probably was not the intent of the drafters, this exemption for incineration may give rise to the mistaken inference that all other handling of hazardous waste, including recycling and reuse, is "disposal" and therefore subject to this waste end tax. We believe that it is necessary to eliminate this possible source of confusion and to strike the incinerator exemption. Striking this exemption will not give rise to the taxation of incinerator activities since incineration is not disposal as that term is defined in Section 1004 of the Solid Waste Disposal Act. Incineration is properly included under the definition of "treatment".

Our Association has suggested language to the Committee staff which would correct this drafting problem (Appendices 1A and 1B). Our recommendations are identical to those made by LTV Steel Corporation, Cadence Chemical Resources, Inc., and the Energy Recovery and Conservation Association. We urge the Committee to accept these changes in its up-coming markup session.

REVENUE CONSIDERATIONS

NASR wishes to emphasize that the exclusion of recycling and reuse activities from the waste end tax will not disrupt the revenue-generating assumption and goals of the drafters of this legislation. It is our understanding that the estimated revenues were calculated without including any assessments for recycled or reused materials.

THE FEEDSTOCK TAX

Although the issue is not squarely before the Ways and Means Committee in this legislation, NASR wishes to bring attention to potential obstacles to beneficial reclamation that may be raised by the Internal Revenue Service's implementation of the Feedstock Tax created in Subchapter B of CERCLA (26 U.S.C. §4661). The waste end tax is imposed on the manufacture, production or importation of certain taxable chemicals. The taxable chemicals include xylene and toluene which are important components of most recyclers' product mix. We do not believe that the Congress intended that recycling activities would be taxable under Subchapter B. The plain meaning of the statutes suggests recycling would not be included because it is not manufacturing. Nevertheless, the Internal Revenue Service has proposed regulations (48 Fed. Reg. 48,839 (Oct. 21, 1984)) which, because of some ambiguities in the preamble, could result in the taxation of solvent reclamation. We believe recyclers should not be considered "manufacturers or producers" under the proposed regulations because they are not manufacturing a product; they are providing a service to recover a product which has already been manufactured. In addition, the substances which are recovered by the recyclers already have been taxed under the Act when they were "manufactured". Such a result would create disincentives to recycle which would be contrary to goals of both the Resource Conservation and Recovery Act and CERCLA. By upsetting the fragile economics of recycling, there would be a dramatic increase in the volume of hazardous materials that would be disposed either on land or in injection wells which is a less environmentally desirable result. NASR also believes that the recovery and direct return of reclaimed substances to the owner (toll processing) is a transaction that is not a sale as that term is used in the Act, and is therefore not a taxable event.

NASR responded in detail to the problems posed by the IRS draft regulations. We are appending a copy of our comments to this testimony to assist the Committee in examining this issue (Appendix 2). Because we believe that this is an unintended impediment to recycling and to the objectives of CERCLA, we strongly suggest that the Ways and Means Committee in its report language of H.R. 5640 include legislative history which will guide the Internal Revenue Service in promulgating regulations which fully respond to the intentions of Congress.

Thank you very much for the opportunity to testify, and we again pledge our interest in working with the Committee staff in resolving these issues.

APPENDIX 1A

WASTE-END TAX EXCLUSION FOR RECYCLERS AND REUSERS AMENDMENT TO H.R. 5640

- Section 503(a) of H.R. 5640 imposes a waste-end tax on the "disposal" of hazardous substances, but exempts incineration of hazardous substances from the tax. Incineration, however, is not "disposal" as defined in the section; instead, incineration is properly characterized as "treatment." (See section 1004, Solid Waste Disposal Act.) This exemption for incineration may give rise to the mistaken inference that all handling of hazardous waste, including recycling and reuse, is "disposal" and, therefore, subject to the tax.

- The waste-end tax is intended to have a dual purpose: (1) to raise revenue for the clean-up of inactive or abandoned hazardous waste disposal sites; and (2) to discourage land and other environmentally unsound methods of hazardous waste disposal by increasing the costs of such disposal. As now drafted, however, the waste-end tax provision may not serve to fulfill this latter purpose because it may, by inference, impose the tax on environmentally sound alternatives such as recycling and reuse.

- The below-listed companies and organizations urge the Ways and Means Committee to amend the waste-end tax provision of H.R. 5640 in accordance with the attached proposed language by removing the incinerator exemption. (The other amendment language is minor, merely clarifying what appears to be the intent of the drafters.)

- Congress and EPA have long recognized that recycling and reuse alternatives to the land disposal of hazardous waste must be developed to protect public health and the environment. Recycling and reuse eliminate a large percentage of the waste, thereby obviating the need to dispose of it on the land where it would remain in the environment indefinitely.

- In adopting amendments to RCRA in 1980, the House Committee on Interstate and Foreign Commerce report stated that: "[t]he Committee strongly believes that recycling of hazardous waste is preferable to disposal." Rep. James Florio (D-N.J.), one of the principal congressional sponsors of hazardous waste legislation, asserted in his opening statement on the 1983 House RCRA amendments that "[w]e must create incentives to shift disposal from the land to other technologies."

- Excluding recycling and reuse activities from the waste-end tax will provide an economic incentive to generators to recycle their waste. As a result, more wastes will be recycled and fewer disposed of. Without the exclusion, the recycled material would be repeatedly taxed, compounding the disincentive to reclaim the resource. Because disposal of hazardous waste poses more danger to human health and the environment, this exclusion will further the primary goal of the nation's hazardous waste legislation, which is the protection of public health and the environment from the adverse effects of hazardous waste.

- Exclusion of recycling and reuse activities from the waste-end tax will not subvert the revenue-generating purpose of the tax; the estimated revenue that would be generated by the tax did not include assessments on recycled or reused waste.

LTV Steel Corporation
Cadence Chemical Resources, Inc.
National Association
  of Solvent Recyclers
Energy Recovery and
  Conservation Association

APPENDIX 1B

WASTE-END TAX EXEMPTION FOR RECYCLERS AND REUSERS

"SEC. 4681. IMPOSITION OF TAX.

(a) IN GENERAL. -- There is hereby imposed a tax on the disposal of any hazardous substance, if such disposal is regulated pursuant to ~~required to be carried out in compliance with~~ subtitle C of the Solid Waste Disposal Act.

"(b) AMOUNT OF TAX. -- The amount of the tax imposed by subsection (a) shall be --

"(1) in the case of any hazardous substance for which there is in effect, under regulations promulgated pursuant to section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of one pound or less --

"(A) $30 for each metric ton which is not disposed of by underground injection; or

"(B) $15 [$5] for each metric ton which is disposed of by underground injection;

"(2) in the case of all hazardous substances for which there is in effect, under regulations promulgated pursuant to section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, a reportable quantity of more than one pound or for which no reportable quantity has been specified under such regulations --

"(A) $10 for each metric ton which is not disposed of by underground injection; or

"(B) $5 for each metric ton which is disposed of by underground injection; and

"(3) in the case of any mixture of any hazardous substance referred to in paragraph (1) and any hazardous substance referred to in paragraph (2), for purposes of determining the applicable rate under this subsection, the entire mixture shall be deemed to be a hazardous substance referred to in paragraph (1).

"(c) LIABILITY FOR TAX. -- The tax imposed by subsection (a) shall be paid by --

"(1) in the case of disposal at a facility for which a permit is in effect under subtitle C of the Solid Waste Disposal Act, the owner or operator of such facility, and

"(2) in the case of disposal which is not in compliance with subtitle C of the Solid Waste Disposal Act ~~other than at such a facility~~, the person disposing of the hazardous substance.

"(d) TERMINATION. -- The tax imposed by this section shall not apply after September 30, 1990.

"SEC. 4682. EXEMPTIONS.

"The tax imposed by section 4681 shall not apply to the following --

~~"(1) The disposal of any substance by incineration in accordance with the standards applicable to incineration facilities permitted under subtitle C of the Solid Waste Disposal Act.~~

"~~(2)~~ (1) The disposal of any substance by any person in the course of carrying out any removal or remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"~~(3)~~ (2) The disposal of any solid waste which is required to be studied under subsection (f) or (p) of section 8002 of the Solid Waste Disposal Act unless, after the completion of the studies, a law is enacted subjecting such waste to the tax imposed by section 4681.

["(3) The treatment of any substance in a wastewater facility utilizing biological activity or carbon adsorbtion treatment in accordance with standards applicable under subtitle C of the Solid Waste Disposal Act to facilities which are operating pursuant to interim status under such subtitle C or pursuant to a final permit issued pursuant to such subtitle C.]

["(4) The disposal of any substance for energy recovery in accordance with any standards applicable to energy recovery facilities permitted under subtitle C of the Solid Waste Disposal Act, if there was a study commissicned by the EPA certifying that such facilities are in compliance with such destruction efficiency standards.]

SEC. 4683. DEFINITIONS AND SPECIAL RULES.

"(a) IN GENERAL. -- For purposes of this subchapter --

"(1) HAZARDOUS SUBSTANCE. -- The term 'hazardous substance' has the meaning given such term by section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(2) OTHER TERMS. -- The terms 'waste,' 'hazardous waste,' 'storage,' and 'disposal' have the respective meanings given such terms by section 1004 of the Solid Waste Disposal Act.

"(3) REPORTABLE QUANTITY. -- The term 'reportable quantity' refers to the notification requirement of section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(4) UNDERGROUND INJECTION. -- The term 'underground injection' has the same meaning as when used in the Safe Drinking Water Act. [Such term includes, but is not limited to, wells which meet the standards applicable to Class I wells under the underground injection control program under such Act.]

"(5) TON. -- The term 'metric ton' means 1,000 kilograms."

Bracketed language changes are recommended amendments referred by the Energy and Commerce Committee to the Ways and Means Committee.

APPENDIX 2

BEFORE THE
INTERNAL REVENUE SERVICE
TREASURY DEPARTMENT

CC:LR:T(LR-16-81)

ENVIRONMENTAL TAXATION OF PETROLEUM AND CERTAIN CHEMICALS HAZARDOUS SUBSTANCE RESPONSE REVENUE ACT OF 1980

TESTIMONY OF THE NATIONAL ASSOCIATION OF SOLVENT RECYCLERS

by
Paul J. Mraz, Vice-President
H. Peter Nerger, Board Member

for

The National Association of Solvent Recyclers
300 Arcade Square
Dayton, OH 45402
513/223-0419

For presentation on: February 16, 1984

Reference: Comment Letter
NASR, Andrew Goutman to Commissioner of Internal Revenue
Dated January 31, 1984

INTRODUCTION

The National Association of Solvent Recyclers (NASR) is responding to the Internal Revenue Services' call for testimony at hearings on its proposed regulations implementing the environmental taxation of petroleum and certain chemicals, pursuant to the Hazardous Substances Response Revenue Act of 1980 (the "Act").

NATIONAL ASSOCIATION OF SOLVENT RECYCLERS (NASR)

NASR is the only national trade association of firms specializing in the reclamation and recycling of solvents from spent and hazardous waste streams. NASR represents approximately 50% of all firms, large and small, engaged in solvent recycling. Its members and affiliates process and/or return to industrial and commerical use 90% of the volume of solvent currently recycled. NASR fosters conservation of natural resources through beneficial recovery of waste solvents.

ISSUE RAISED BY PROPOSED REGULATION

The issue here is whether, as proposed under Section 52.4661-1(d)(2) the regulations should define the terms "manufacturer or producer" to include those who "recover" a taxable chemical from waste or recycled substances since two of the chemicals now listed in the proposed regulations - xylene and toluene - are important components of most recyclers' product mix.

SUMMARY OF ARGUMENTS AGAINST INCLUSION OF RECYCLERS AS MANUFACTURERS OR PRODUCERS

Recyclers should not be considered "manufacturers or producers" under the proposed regulations because:

1. Recyclers provide a "service" and do not "manufacture" within the accepted understanding of the meaning of the word.

2. The substances that are recovered by the recyclers would have already been taxed under the Act when they were "manufactured".

3. Taxation of recovered substances would be counter to the goal of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") - namely, reduction in volume of disposed hazardous materials.

4. The recovery and direct return of reclaimed substances to the owner ("toll processing") is a transaction that is not a "sale" as required under the Act.

5. It would be discriminatory and unfair to tax an owner of waste material who hires a recycler to recover his material but not an owner who does it himself at an unpermitted facility.

CLARIFICATION REQUIRED

Blending of spent solvents or waste materials not suited for recovery as fuels for industrial furnaces utilizing them for their energy content is apparently not "manufacturing" under the Act. The spent solvents are not "manufactured" into listed substances - they are simply burned. To avoid confusion the proposed regulation should include an additional clarifying example after Section 52.4661-1(f)(2) Example (6):

> "Example (7)" A sends spent xylene to B. B blends the spent xylene into a flammable or combustible mixture which is sold to a cement manufacturer for use in his kiln as a fuel. There is no manufacture of a listed substance and no tax liability."

ARGUMENTS

1.

Recycling Is A "Service" And Not A "Manufacture"

Manufacturing of listed substances involves the use of various processes to chemically transform raw materials. In contrast, solvent recyclers recover reuseable solvents from contaminated product by physical means. The identity and chemical makeup of the contaminated material is unaffected by the recovery process. Nothing is "manufactured": the solvents are simply cleaned. In fact, the Office of Management and Budget has classified "Solvent recovery services, on a contract basis" as a miscellaneous business service with Standard Industrial Classification Number 7399. This classification is within the Business Services Major Group of the Services Division, and not within and of the Manufacturing Major Groups.

The Act established different rates for each of the listed substances. Congress' imposition of different tax rates upon the amount of substance manufactured and sold reflects consideration of the cost of manufacture and resulting sales price of the substance, not that of a service.

2.
Recovered Substances Have Already Been Taxed

Every recovered substance was at one time manufactured from a new or raw feedstock to produce the chemical substance. It would have been taxed at that time. The proposed regulations, however, would subject the same material to multiple taxation by imposing the obligation each and every time it is restored to usable condition by recovery. The resultant injustice is readily apparent.

3.
Taxation of Recovered Substances Defeats Resource Recovery And Conservation And Encourages Disposal

Taxation of recycled substances would be counterproductive to the goals of the legislation of which the Hazardous Substance Response Revenue Act was but a part. The Act was Title II of the Comprehensive Environmental Response, Compensation and Liability Act, commonly known as "Superfund". That legislation was directed at the problem ~~of~~ improper disposal of hazardous materials. Under the proposal the tax would increase the costs of recycling to customers thereby discouraging solvent recovery and reuse. Rather than reducing waste and conserving resources, the regulation would subvert Congress' goals by creating an economic incentive favoring disposal.

An additional concern with the proposed regulations is the necessity to calculate the listed portion of a recovered product which also contains unlisted substances. Because some common solvents would be taxed and others would not, a solvent recycler would be obligated to analyze every batch of mixed solvents for these proportional amounts. That additional expense could be sufficient to discourage recovery, a process already highly regulated. The obvious alternative would be disposal.

4.

Direct Recovery And Return (Toll Processing) Is Not A "Sale"

Most solvent recyclers engage, to one degree or another, in toll processing of solvents which no longer meet the specifications of the owner because of the presence of solid residues or other solvents. Solvents or mixtures of solvents received from a customer are processed to separate the solvent from the unwanted constituents, brought up to specifications and returned to the customer. Either the same material or its ~~chemical~~ equivalent is returned. When they engage in recovery and return, solvent recyclers are providing a service, not sale of a product. The absence of "sale", an essential trigger for application of the statute, may be found in the very nature of the transaction. The price the solvent recycler is paid for this service is not based upon the intrinsic value of the solvent but upon the cost of the services he provides.

5.

Taxation of Materials Recovered By Permitted Recyclers Would Unfairly Favor The Generator Who Attempts It Himself And Would Raise The Cost Of Recovered Materials And Increase Risk Of Environmental Damage.

The proposed regulation is discriminatory and environmentally dangerous in that it would tax an owner of waste material who sends it to another for recovery, but would not apply to the very same owner who performs exactly the same recovery at his own location. There is no defensible basis for such discrimination. Because toll processing uses all of the equipment and specialized knowledge of the chemical engineer, it would be impractible for every solvent user to perfo recovery on its own location. This distinction in the regulations would encourage those who utilize toll processing to either dispose of the solvent (with the concomitant environmental harm described above) or to institute on-site recycling. Such on-site recycling would, in the absence of the specialized knowledge of the solvent recycler, be less efficient, less safe and considerably more likely to result in environmental damage. Solvent recyclers are fully permitted by the Environmental Protection Agency and subject to strict environmental safeguards. A shift from safe, efficient and environmentally sound centralized solvent recycling performed by specialists in this highly technical work, to on-site solvent recycling would result in increased expenditures by industry without any benefit to society.

Under the proposed regulations a manufacturer may recover and re-utilize the material it produces without becoming liable for the tax after its first use. However, one that recovers the same product in the same way as would the original manufacturer and re-utilizes the recovered material itself would be subject to the tax. There is no rational basis for this disparate treatment. Recyclers that recover solvent and reuse it themselves should not be subject to tax.

Mr. GIBBONS. Thank you very much, lady and gentlemen.

I want to say to each of the witnesses, we are going to put your entire formal statements in the record.

Mr. Merrigan, will you run over for me again briefly, though, the problem between the virgin material and the recycled material, just briefly? Tell me what you think the solution to the problem is.

Mr. MERRIGAN. The solution insofar as this legislation is concerned is, in our judgment, Mr. Chairman, to exempt the recycled metals which compete with the virgin metals from the chemical tax. The virgin industry is exempt from the waste end tax in the bill today because it is still being studied by the EPA at this time.

In addition to that—and I know you recall from the days when the recycling tax credit, which is now defunct, it died with the energy credits, was before Congress—the virgin metals enjoy the depletion allowance and the capital gains treatment of profits to some degree—and the only incentive enacted by Congress was the recycling tax credit which is now defunct. We think since metal recyclers take these recyclable metals from solid wastes and, if you will, hazardous wastes, that it would be as counterproductive as anything could possibly be to subject them to a sales tax on what they produce from the recyclable metals taken from the waste stream.

Mr. GIBBONS. This whole thing about, for instance, lead, virgin lead, the slag piles don't get taxed—reclaimed lead slag piles get taxed—what about that?

Mr. MERRIGAN. That stems from the fact that in the recycling industry lead would be taxable under the chemical tax—that would be for the first time, under this bill, by the way—the lead would be subject to the tax. The virgin industry would be exempt on the mining side. As you know, there are two taxes——

Mr. GIBBONS. Yes.

Mr. MERRIGAN. The waste end tax, under which the mining wastes would be exempt because they are being studied by EPA. Any wastes produced by the recycling industry would be subject to the waste end tax, and the recycling industry would also be subject to the chemical sales tax.

We feel, as far as our own industry is concerned, that the waste end tax should apply to anyone who puts anything hazardous into the environment, whether it is on the land, in the air, or in the water, but recyclers should be exempt from the sales tax on recycled metal. We think it balances if Congress elects to continue, to exempt virgin industry from the waste end tax.

Mr. GIBBONS. OK.

Mr. MERRIGAN. I hope I have made that clear.

Mr. GIBBONS. I understand.

I can't figure out how they worked it out like they have it here.

Mr. CONABLE. Because they were unwilling to do anything to the virgin metal at this point, because it is being studied, thus, you have the anomaly of the virgin industry being home free while you are subject to the tax.

Mr. MERRIGAN. And, of course, maybe it is only our point of view, but I think from the environmental point of view you should be doing everything from a hazardous waste standpoint and from a solid waste standpoint to give incentives to recycling—not to stimulate the production of more virgin material. Because the recycler takes it out of the waste stream and uses it again, thereby eliminating the waste problem.

Mr. GIBBONS. It sure makes sense.

I am having a hard time getting it through my thick skull why that wasn't what they suggested. Maybe I have an oversimplistic approach to the problem.

Mr. MERRIGAN. I think it all stems from the fact that mining wastes are exempt until the study is over. The mining industry is basically exempt from RCRA controls until the study is over. And EPA has just been taking an awful long time to make the study.

Mr. GIBBONS. When is the study supposed to be over? When the money runs out?

Mr. CONABLE. By the end of this year? I think.

Mr. MERRIGAN. In 1976, it was mandated. And the latest prognosis is that it will be over by the end of this year or next year.

Mr. GIBBONS. Or when appropriations run out?

Mr. MERRIGAN. Or some year.

Mr. GIBBONS. Any other questions?

Mr. MOORE. Mr. Chairman, I listened to and read the testimony of all the witnesses. First of all, I firmly and strongly favor a waste end tax as a way of broadening this tax to get away from the feedstock tax which I think will be ruinous to the industries in this country if we proceed to raise the $13 billion we are faced with all from the feedstock tax. I think that is absolutely unthinkable.

I think that these witnesses have pointed out some very good points, Mr. Chairman. I agree with you entirely that you must exempt from this the proper treatment and recycling of wastes. You have got to give an incentive to take care of the wastes rather than just dumping it in a hole somewhere in the ground. Unless we have an exemption, we are not doing that. So, I think it is necessary.

I think the reason why it wasn't done is money. If you are going to raise the money that has been suggested to us and you start exempting people, you start lowering the amount of money you talk about.

I think we are simply going to have to find a way to come to grips with that and raise it somewhere or take it from the general fund, because this makes no sense at all to give tax recycling, just like I am firmly convinced we need to give an exemption for any chemicals or metals that we export from the tax.

They are not winding up here to be dealt with or cleaned up. Those are the exemptions, Mr. Chairman, that will cost revenue, and we have to find ways to come up with it. But that is why we have to go over the bill.

I thank you for your testimony, all of you.

Mr. **Mraz**. It is our understanding that recycling was not included in the original revenue estimates. It is merely the confusion that could result in existing language that we are opposing; we are attempting to do some clarification of the law to make sure that it is clearly understood that recycling should be exempt.

Mr. **Moore**. That could be right.

Mr. Florio singled out the fact that someone may call something recycling, and in fact it wasn't. We can handle that in an environmentally sound way——

Mr. **Mraz**. That is not the recycling we are addressing here, I don't think.

Mr. **Gibbons**. Thank you, lady and gentlemen.

Mr. **Merrigan**. Thank you, Mr. Chairman.

Mr. **Gibbons**. Our next panel is the American Independent Refiners Association; Union Carbide Corp.; Allied Corp.; Monsanto Co.; and Stepan Co.

Mr. Eddy, you are first.

STATEMENT OF CHARLES P. EDDY, DIRECTOR, GOVERNMENT AND REGULATORY AFFAIRS, TOSCO CORP. OF SANTA MONICA, CA, REPRESENTING THE AMERICAN INDEPENDENT REFINERS ASSOCIATION

Mr. **Eddy**. Thank you, Mr. Chairman.

I am Charles Eddy. I am director of government and regulatory affairs for Tosco Corp. I am speaking on behalf of the American Independent Refiners Association, AIRA, which represents approximately one-third of the independent refiners in the United States. We are the only association speaking solely for independents.

Independent refiners are those which do not have their own significant supplies of crude oil. We differ from the major integrated companies in that we basically live and die by refining. We are not in a position to subsidize taxes or other losses in the refining sector from our production operations.

We are here today because H.R. 5640 places a substantially disproportionate burden on independent refiners relative to other refiners, relative to gasoline importers, and relative to other industries.

We heard discussion earlier today about the desirability of the feedstock tax system and how it works on a building block basis and is passed through to other consumers in the economy. However, there is a fundamental flaw in the feedstock system which we would like to discuss briefly today, because it has a very serious impact on our particular sector.

Going back to the original Superfund legislation, the report accompanying the Senate bill stated that that tax must be evenly passed along to all industrial sectors which produce and consume hazardous substances and generate hazardous waste. The intent clearly was that this tax would be passed through; it would not be left at the refining end of the business. This basic premise is not holding true in today's marketplace. This is true because of conditions which have developed in the petroleum marketing area, which we anticipate will continue at least for the foreseeable near future.

Currently, we have a situation of flat demand in the petroleum marketplace and a time of refining surplus, and also a time of accelerating gasoline imports. This has led to a very competitive situation, very aggressive marketing and pricing of products with the objective of obtaining market share in this situation of tight demand.

In addition, gasoline imports have accelerated significantly over the last year or two. In effect the marginal or incremental barrels of gasoline, those barrels coming in at the margin setting the price in this competitive market, are imports. These imports are produced by primarily foreign countries which produce gasoline as a byproduct. This marginal price is further driving the prices down. Because of this, it is virtually impossible to pass this tax through.

Now, this is hitting independent refiners at a time when our profit margins are often negative, all too often negative, and when if they are positive they are usually in the range of a penny a gallon or less.

The tax increase that would be imposed by H.R. 5640, in the form of the six or sevenfold increase in the crude oil tax, and in the benzene, toluene, and xylene tax—which we can't fully determine impacts of because of its indeterminant nature—these two taxes in combination would eliminate those slim profit margins. Again, these taxes just cannot be passed through.

There is another significant inequity which emerges, and this is the BTX tax—benzene, toluene, and xylene—which are produced in the process as a product called reformate and introduced back into gasoline in the same refineries generally to enhance octane particularly in unleaded gasoline.

The BTX tax as proposed in the bill would apply only to domestically refined gasoline—not to imported gasoline. In effect, this bill would create a significant subsidy to imported gasoline. Gasoline which is imported into this country is usually leaded. This is coming in at a time when the Nation's environmental policy is directed toward reducing lead levels in gasoline, and at a time when companies such as our company and many others have invested heavily to produce unleaded gasoline.

Because BTX is produced and reintroduced in gasoline in an effort to meet unleaded gasoline standards, we are in effect penalizing those companies who have invested with this objective in mind.

We would recommend the committee consider the following: First, eliminate the BTX tax. Congress has recently spoken on this—in fact, in the Debt Reduction Act, where it voted for and the President signed legislation which made it clear that the Congress did not intend that refinery intermediate chemical streams, such as BTX, be subject to a tax.

We recommend also that the petroleum feedstock be maintained at the current level until there is a better understanding of the need for this tax in relation to the waste generated by the refining industry.

We also would like to urge the committee to consider a system whereby the petroleum feedstock tax is imposed at the refinery exit; that is, on products where it can be passed through with certainty to wholesalers, resalers, and ultimately consumers, and not absorbed at the refinery.

Finally, considering the magnitude of Superfund and the increases that are expected—we have heard estimates ranging as high as $40 billion—it is hard to conceive of imposing a tax system on just two industries that won't have the type of inequity I have highlighted.

We would urge the committee to strongly consider the possibility of a much broader based industrial tax which will ensure that the equities of trying to clean up a problem of this magnitude are not shouldered by sectors of the industry such as ours, which simply cannot absorb them.

Thank you.

[The prepared statement follows:]

STATEMENT OF CHARLES P. EDDY, ON BEHALF OF THE AMERICAN INDEPENDENT REFINERS ASSOCIATION

Mr. Chairman and Members of the Committee, my name is Charles Eddy, and I am the Director of Government and Regulatory Affairs for Tosco Corporation of Santa Monica, California. I am testifying today on behalf of the American Independent Refiners Associations. AIRA is the only trade organization which speaks exclusively for indpendent refiners, and it accounts for nearly one-third of the Nation's independent petroleum refining industry. We appreciate this opportunity to present our views to the Committee.

I. SUMMARY OF COMMENTS AND RECOMMENDATIONS

Generally, AIRA members recognize the need for Superfund to pay for the cleanup of certain petroleum and chemical spills, and we support its reauthorization. However, there is serious concern about the increased taxes which would be imposed as a result of H.R. 5640, as reported by the Energy the Commerce Committee. H.R. 5640 would impose a burdensome and inequitable tax increase on this industry. This would occur even though the Environmental Protection Agency ("EPA") has not yet completed its projections of Superfund funding needs.

The Hazardous Substance Response Revenue Act of 1980 (94 Stat. 2797), more commonly known as the Superfund Tax Act ("the Act"), imposed both a tax on crude oil ("petroleum tax," I.R.C. Section 4611) and a tax on certain organic and inorganic chemicals, including petrochemical feedstocks ("chemical tax," I.R.C. Section 4661). Currently, every barrel of crude oil received at a U.S. refinery is subject to a .79 cents per barrel petroleum tax. H.R. 5640 would increase the petroleum tax to 4.5 cents per barrel. The bill also, in direct contravention of the most recent ominbus tax act, would subject domestic refiners to double taxation by applying the chemical tax to certain interim hydrocarbon streams which ultimately are blended into gasoline.

AIRA members believe that together these tax changes would impose a disproportionate burden upon independent refiners as compared to other domestic refiners, upon domestic refiners as compared to foreign refiners, and upon the refining industry generally, as compared to the chemical industry. We recommend that H.R. 5640 (1) be amended to delete the language which would impose the chemical tax upon interim refinery streams of benzene, toluene and xylene, (2) be amended to maintain the petroleum tax at its current level, at least until further funding information is available, and (3), in order to make it more likely that the petroleum tax can be passed downstream, be amended to modify the method by which the Superfund petroleum tax is collected.

II. INDEPENDENT REFINERS HAVE SERIOUS FINANCIAL PROBLEMS

The independent sector of the petroleum refining industry historically has provided important innovations and has served some product markets which are not served by the major integrated oil companies. Independent refiners, which are the primary suppliers of independent marketers and retailers, facilitiate competition at the pump by providing consumers with a competitive alternative to the integrated majors.

In recent years independent refiners, which, by definition, do not have substantial reserves of crude oil, have been facing severe financial difficulties. Many of us have incurred substantial debt in order to upgrade our facilities to meet changing consumer demands and to comply with evolving environmental regulations. No matter how sophisticated our refineries have become, however, most of us simply are not earning profits from refining operations. Facing volatile product markets and increasing volumes of imported petroleum products, independent refiners today are generally operating with profit margins per gallon which range from a fraction of a cent above zero to substantially less than zero.

Unlike the majors, independent refiners cannot finance our investments or losses through their reserves of crude oil. Since 1981, more than 80 independent refiners have gone out of business, and almost all of us which still remain are suffering financial problems. Thus, independent refiners are forced to address every proposal which threatens to further undercut out miniscule or negative margins as a life and death issue.

III. IMPOSITION OF THE CHEMICAL TAX UPON INTERIM STREAMS OF BENZENE, TOLUENE AND XYLENE WOULD BE INEQUITABLE AND DIFFCULT TO ADMINISTER

In the refining process, the lighter and more active benzene, toluene and xylene are often separated from the refined streams as reformates and reblended into gasoline during the final stages of production in order to achieve desired octane levels. Last year, the Internal Revenue Service proposed regulations which would have treated these partially processed hydrocarbon streams as "taxable chemicals" even though they ultimately leave the refinery gate as gasoline components and not as petrochemical feedstocks (48 Fed. Reg. 48839; October 21, 1983).

However, those regulations were not put into effect, and a provision in the recent Deficit Reduction Act of 1984 amended the Act to clarify that such an imposition of the chemical tax upon interim refinery streams would be inconsistent with the intent of Congress. In enacting that clarification, Congress refused to alter significantly the tax balance and declined to permit the Superfund tax burden to be shifted away from the chemical industry to the petroleum industry. S. Rept. No. 98-169, Vol. I, at 760, 761, 98 Cong. 2d Sess. (April 2, 1984).

By enacting Section 504 of H.R. 5640, however, Congress would be quickly reversing itself. That section would apply the chemical tax to streams of benzene, toluene and xylene which are blended into gasoline ("BTX"). Its impact would be to impose a disproportionate tax burden upon refiners, and particularly upon independent and other domestic refiners.

The original Act incorporated the approach of imposing the tax burden on petroleum, petrochemical feedstocks and inorganics approximately in proportion to the ratio of hazardous wastes generated from each. *E.g.,* S. Rept. No. 96-848 to accompany S. 1480, at 20, 96th Cong. 2d Sess. (1980). The three basic criteria which were considered in the development of this fee allocation approach were (1) equity, or nexus to the problem; (2) lack of administrative complexity; and (3) economic impact on the basic systems of production. The drafters sought to create an equitable fee system with minimal and widely diffused economic impact. They chose a system which imposes the tax on the relatively few basic building blocks which can result in the generation of all hazardous products and wastes. The intent was not to single out any one industry's profits as a source of revenues, but rather to have the tax "evenly passed along to all industrial sectors which produce and consume hazardous substances and generate hazardous wastes." *Id.* at 19-20.

The Act was intended to raise $1.38 billion in taxes during a 54-month period. According to the allocation system which was evised using the three criteria, the petroleum tax was expected to generate 15 percent of the total fund from the refinery industry, reflecting the level of waste generated by that industry. The remaining 85 percent of the fee was to be generated from inorganics (20 percent) and petrochemical feedstocks (65 percent), reflecting the level of waste generated by those sectors.

Actual tax collection figures indicate that the intended allocation scheme has worked. According to IRS statistics, crude oil accounts for about 15 percent of Superfund taxes. This probably represents significantly more than the refining industry's fair share, since EPA has estimated that refineries are generating less than five percent of the nation's hazardous waste.

If the BTX tax were enacted, the burden of funding would be drastically distorted, and would represent a substantial departure from the plan to impose the tax evenly in proportion to waste generated. The refining industry could be called upon to contribute several times that 15 percent which, in itself, reprsents an expansive measure of the industry's fair and proper share of the cost of cleaning up hazardous wastes.

The BTX tax not only would disproportionately burden the refining industry, but also could result in varying economic impacts and substantial competitive problems among various sectors within the industry. One critical problem is that, at a time when domestic refiners are struggling to meet the growing competition from foreign, often government-owned refiners, the BTX tax would act as a subsidy for imports of petroleum products. This is because, although importers would continue to pay the petroleum tax, the finished product they import would not be subject to the chemical tax imposed on interim streams.

The BTX tax would result in an incremental tax, on domestic gasoline only, approaching a cent per gallon. This tax differential, during a period when margins are extremely tight or negative, could seriously undercut the competitive position of many domestic companies. The members of AIRA are particularly concerned about this impact of the proposed BTX tax. As domestic companies already struggling to compete with increasing volumes of foreign product, independent refiners could be injured significantly by any additional subsidy to foreign and international refiners.

Another inequitable aspect of the BTX tax is that its level would vary significantly from company to company, according to a variety of factors which may have nothing to do with the hazardous waste ultimately to be generated. Various refineries produce and blend varying combinations of interim streams, depending upon their feedstocks, their desired product slates and the nature of their facilities.

The BTX tax would tend to penalize refiners which have made the most extensive investments in order to comply with clean air standards by producing unleaded gasoline. Most refiners, including many independent companies, which produce higher than average levels of unleaded gasoline accomplish this by blending benzene, toluene and xylene into their gasoline in order to boost octane. These producers of unleaded gasoline would pay a higher than proportional share of BTX tax. This obviously directly contradicts the federal policy to encourage the production of unleaded gasoline.

Finally, because operations which produce and use BTX vary from day to day and facility to facility, the BTX tax also would not achieve the goal of ease of administration. It would not be simple to measure and record varying BTX levels, nor to compute, report and audit the BTX tax. A probable result would be uneven application of the tax and substantial controversy.

IV. EVEN WITHOUT INCLUSION OF THE BTX TAX, THE TAX BURDEN IMPOSED ON THE REFINING INDUSTRY BY H.R. 5640 WOULD BE DISPROPORTIONATELY HEAVY

As has been discussed, an equitable distribution of the tax burden was an important Congressional goal in the development of the original Superfund fee system. AIRA members believe that this is a goal which makes sense and should be maintained. The tax burden should be diffused widely and imposed in proportion to the generation of wastes.

Under the current allocation scheme, however, the petroleum industry is paying 15 percent of the tax. According to EPA's estimates, this tax contribution is more than three times the industry's contribution to the generation of hazardous waste. Even if the BTX tax is removed from the bill, the proposed petroleum tax increase—from .79 cents to 4.5 cents per barrel—would perpetuate the imbalance within the allocation system, without apparent justification. AIRA members believes that the equitable principles underlying the original allocation system should be reaffirmed, and that the distribution of the tax should be consistent with the actual distribution of hazardous waste generation.

The tax increase and the skewing of the tax burden is particularly troublesome because EPA has not completed its examination of the distribution of hazardous wastes and associated cleanup costs. Therefore, at least until further information is available, AIRA members urge that the petroleum tax be maintained at its current level.

V. A SUBSTANTIALLY INCREASED PETROLEUM TAX WOULD HAVE A DEVASTATING IMPACT UPON THE INDEPENDENT REFINING SECTOR AND THE COMPETITIVE STRUCTURE OF THE INDUSTRY.

By its very nature, an excise tax is expected to be passed on downstream to a manufacturer's customers. In this case, Congress originally intended that the tax upon a few "building block" products would be passed on evenly, throughout the economy, so as not to weigh too heavily upon any single industry.

However, AIRA members are particularly concerned about any Superfund tax increases because, regardless of Congressional intent, in the current tight market it is unlikely that refiners would be able to pass the increase on to our downstream customers.

The current petroleum marketplace is highly competitive, and in many geographic areas there is extensive price cutting as companies, particularly the major integrated oil companies, endeavor to gain market share at a time of relatively flat demand for gasoline and a surplus of refining capacity. In addition, the marginal or incremental barrels, which in competitive markets theoretically act to set the price, are imported gasoline. Because much of this is surplus to the needs of the producing countries, it is being imported at prices which are low enough to create a U.S. market. These market conditions—the strong downward price pressures to create market share and inexpensive imported gasoline establishing the marginal price—would make it impossible to pass the additional Superfund crude oil tax through to users.

For the major integrated companies, which have other sources of income, the necessity of absorbing the additional tax might be costly but not ecomically devastating. For those integrated companies reporting taxable income, the excise tax at least can be deducted. Independent refiners, however, are earning little net income, and for some independent companies the necessity of absorbing even a small fraction of a cent of additional tax could be a critical if not fatal blow. At this point, the financial viability of these refiners depends on fractions of a cent.

VI. WHATEVER ITS LEVEL, THE METHOD BY WHICH THE PETROLEUM TAX IS COLLECTED SHOULD BE ALTERED, IN ORDER TO FACILITATE PASSTHROUGH

AIRA members proposed that, whatever the tax level, the system for collecting the petroleum tax should be modified to facilitate maximum passthrough to ultimate downstream purchasers. Industry history suggests that petroleum taxes are more likely to be passed through to downstream customers if the taxes are levied upon refined petroleum products, with liability resting with first purchasers, instead of being imposed upon refinery feedstocks. Generally, therefore, independent refiners prefer that the Superfund tax be imposed upon our products, and not upon the crude oil which enters the refineries' gates.

One specific way to change the system to encourage passthrough would be to collect the tax by increasing and broadening the existing tax on motor fuels. The current per barrel Superfund feedstock tax on crude oil could be readily converted into a corresponding increase in the existing Federal motor fuel excise tax on petroleum-based fuels (I.R.C. Sect. 4091 et. seq.), with the incremental tax also extended to other products. The tax could be dedicated to the Superfund, in the same way that a portion of the motor fuels excise tax is now dedicated to the Highway Trust Fund. No new administrative collection system would be required, since the increment would be added to the motor fuel excise taxes already in place, and the current system could be readily adapted to additional products. Generally, such a tax structure would be less burdensome than the structure of the current superfund petroleum tax. Also, this approach would facilitate the taxation of products at various levels, in proportion to their contribution to the hazardous waste problem.

In addition to the issues we have described above, there is a more critical reason for reconsidering the basis by which the Superfund tax is assessed. It is becoming increasingly more clear that the total costs of cleaning up the nation's abandoned hazardous waste sites will be astronomical—many times the currently authorized Superfund levels. These problem sites are attributable not primarily to current practices of two major industries, but to the past practices of virtually every segment of American business, from the corner dry cleaner to the largest industrial plants. The Committee today will hear at least one proposal to broaden the Superfund tax base. We strongly urge that a tax distributed across a broad cross-section of American industry be seriously considered by this Committee.

Many of us in the independent refining sector regard this as a matter important to our survival. A reauthorization of the Superfund without a full understanding of the equities involved and a reassessment of the basis for the tax in light of reasonably expected revenue needs would be a mistake we may not be able to survive.

Thank you for the opportunity to appear before you today.

Mr. GIBBONS. Mr. Kennedy.

STATEMENT OF ROBERT D. KENNEDY, EXECUTIVE VICE PRESIDENT, UNION CARBIDE CORP.

Mr. KENNEDY. Thank you.

I am Robert D. Kennedy, executive vice president of Union Carbide Corp., one of our larger manufacturers of chemical and plastic products.

Union Carbide believes that the Congress should reauthorize the Superfund. Its revenue-raising capabilities should not be permitted to expire in September of next year. Based on the information at hand now, we believe that EPA spending levels in the order of $850 million per year can be justified for the next 5 years. A feedstock tax, a borrowing authority and waste end tax should provide sufficient funds to support these spending needs.

The feedstock and waste disposal taxes proposed in H.R. 5640, if enacted at anything close to levels proposed, are likely to have very serious possible devastating consequences for the basic petrochemical industry in this country.

I will cite just two chemicals briefly of concern to us at Union Carbide which I believe raise serious questions about first the logic and then the simple arithmetic of the proposed Superfund tax rates.

First, ethlyne. It is the largest revenue producer on the entire list of Superfund substances. It appears, and I say appears because the report of the Committee on Energy and Commerce does not explicitly state the rationale used, that a 1986 marketprice for ethlyne was assumed, guessed at, and a tax rate fixed at 3 percent of that 1986 price. The problem is that the 1986 guessed-at price for ethylene is 50 percent higher than today's price for ethlyne and we would ask why? What possible scenario leads us to a 50-percent increase in crude oil or energy prices between now and 1986?

Because ethylne prices are directly related to world energy crisis and crude oil prices, the bill as proposed means that this committee is betting on a $45 per barrel oil price by 1986. It is hard to construct that scenario. At least give us the logic and benefit with respect to ethlyne of starting with the reality of today's price which has been stable, along with oil prices, for the past 18 months. This would produce a Superfund tax rate of $13.20 per ton, not what is proposed.

I would like to add one more point on ethlyne. Almost 50 percent of all ethlyne produced in this country is converted into polyethylne, the most widely used plastic in the world. It is not a toxic or hazardous material, nor is there hazardous waste byproduct generated in the manufacture of polyethylene. In levying a waste cleanup tax of such proportions on all ethlyne, is it not logical to consider that half the ethylene finds its way into harmless end use. We know a number of other substances have been partially or wholly exempt on similar grounds.

Another brief example which we ask the committee to look into is a tax imposed on uranium oxide. It seems to be an outright error, in favor of Union Carbide at this time. The tax on uranium oxide in the bill is based on a price per pound rather than price per ton. If the rationale of the drafters of the bill were consistently applied, the tax on uranium oxide would be at the cap of $14.94 per ton rather than $1.44 cents per ton as now proposed in the bill.

I point out just these two examples to this court of last resort to suggest that the proposed tax rates on at least two substances, ethlyne and uranium oxide, the biggest and one of the least of the substances, are seriously flawed. Perhaps there are other flaws as well, a serious matter we would think in a $9 billion revenue measure.

Others have spoken to the waste end tax, the issue of should it be on a dry- or wet-weight basis. It makes no sense to us to tax water. It makes a lot of sense to tax the weight of hazardous substances contained in the water. The measurement of solid content of water slurries is routinely available. This bill is so important to the cleanup of waste sites and so important to an industry which, while contributing 35 to 40 percent of the hazardous wastes is being asked to pay 85 percent of the bill for it. We respectfully urge your most thoughtful and deliberative action, not unjust hasty action.

Thank you.

[The prepared statement follows:]

STATEMENT OF ROBERT D. KENNEDY, EXECUTIVE VICE PRESIDENT, UNION CARBIDE CORP.

Mr. Chairman and members of the Committee, I am Robert D. Kennedy, Executive Vice President of Union Carbide Corporation, a large manufacturer of chemical and plastics products, as well as a producer of a variety of other industrial and consumer products. We welcome the opportunity to present our views on the tax provisions of H.R. 5640, the Superfund bill.

Union Carbide believes that the Congress should reauthorize the Superfund. Its revenue raising capabilities should not be permitted to expire on September 30, 1985. We believe that the most prudent way for Congress to proceed would be to first undertake a realistic determination of EPA's annual funding needs for a five-year program of hazardous waste response and cleanup. The annual amount of funds to be raised by the special Superfund taxes can then be determined, after making allowances for the clean-up costs which will be borne by responsible parties, the Federal contribution to Superfund and any interest earned by deposits in the Superfund account. We also believe that the trust fund should have authority to borrow against future receipts in order to permit the EPA to achieve a better balance between its program activities and the flow of funds.

More complete or accurate data on the funding needs will not be available until the EPA completes the studies it now has underway. However, based on the information at hand now, we believe that annual EPA spending levels of $850 million can be justified for the next five years. A "feedstock" tax at current levels, supplemented by an equitable "waste disposal" tax, and borrowing authority will provide sufficient funds to support these spending needs.

The feedstock and waste-disposal taxes proposed in H.R. 5640 far exceed those levels. The amounts the bill seeks to raise from industry taxes are exceedingly high. If enacted at anything close to the levels proposed, they are likely to have very serious—devastating may not be too strong a word—consequences for the basic petrochemical industry in the United States and for the dozens of other industries which rely on its products.

The production of the eleven primary petrochemicals which are subject to the Superfund tax involved a net loss of $400 million in 1982 and barely broke even in 1983. Despite that dismal economic situation, they also paid $158 million a year in Superfund taxes. The forecasts for the future are equally gloomy. The outlook for the next several years indicates that Superfund taxes, at the rates imposed in H.R. 5640, will equal 30 to 100 percent of the prospective earnings in primary petrochemicals.

In fact, we regard the feedstock tax rates specified in H.R. 5640 as so high as to be self-defeating. They are likely to impose such high costs on the domestic production of major commodity petrochemicals as to render them non-competitive in the face of rapidly growing production capability in other petroleum-rich countries. The upshot is likely to be significant declines in the U.S. production and reduced, rather than enhanced, receipts by the Superfund. As proposed in the bill the waste end taxes also will impose costs above the level that can be borne by many companies.

In addition to our general anguish over the level of taxes proposed in the pending bill, we are specifically and gravely concerned over the individual levels of feedstock taxes set in Section 504 of the bill. In some major instances the tax rates specified in the bill do not appear to have any rational or even discernible relationship to the price of the feedstock, to its competitive situation in the marketplace, or to the hazardous products which may be the result of its production, use or disposal.

Unfortunately, the Report of the House Committee on Energy and Commerce sheds no light as to the rationale used in determining why the specific commodities which would be subject to the Superfund taxes inposed by Section 504 were selected, and the Report provides only limited evidence as to how the specific tax rates were determined. However, it appears that the drafters of H.R. 5640 started with a listing of substances which the EPA identified as being present in one or more of 881 hazardous waste sites which they have evaluated with a hazard ranking system. From that compilation there was developed a list of chemical feedstocks used in producing the organic chemicals found in those waste sites and a list of the inorganic materials and metals also found in those sites. This combined list, with some deletions (like copper and beryllium), apparently formed the basis for the listing of substances in Section 504. The specific tax rates for each substance on the list were developed by guessing a 1986 sales price for each substance and setting the tax rate, in dollars per ton, at three percent of this estimated price, but not higher than $29.87 per ton for organic materials and $14.94 for inorganic materials. However, in some important instances, these tax rates were adjusted upward or downward for no apparent reason. The final revenue estimates were then calculated, as nearly as we can tell, by applying those artificially constructed tax rates to a projection of the production volumes to arrive at an estimate of revenues. To us, the use of estimated 1986 prices seems to be an arbitrary and capricious way to levy taxes of more than $1 billion a year. It would result in distortions, inequities and outright errors that should not, by any standard, become a part of our tax laws.

Our concerns in this respect can be best illustrated by examining the tax on ethylene, the most widely used chemical feedstock, and the tax on uranium oxide. At Union Carbide, we looked first at these two "feedstock" taxes because we are major producers of both of these products and are keenly aware of their prices, price trends and market outlook.

Ethylene is a relatively simple organic molecule consisting of two atoms of carbon and four atoms of hydrogen. It is a gas at normal pressure and temperature, and is produced by the "cracking" of petroleum fractions like naphtha and gas oils, or by the cracking of natural gas liquids like ethane and propane. Historically its price, like the price of most petrochemical feedstocks, has tracked the price of petroleum. In 1983, the United States produced 14,500,000 tons of ethylene at an average price of $380 per ton.

Ethylene has several features worth noting in the context of a Superfund tax. First, because it is a gas at normal temperature and pressure, ethylene is not an item of international commerce. It is neither imported nor exported. Instead, it is converted into its many downstream derivatives before being shipped. Its largest single derivative—accounting for 48 percent of ethylene production in 1983—is polyethylene, the most widely used plastic material in the world. Polyethylene is not a hazardous substance. It does not result in any hazardous waste. We believe that a logical, rational development of feedstock taxes for Superfund should take that fact into account in setting the tax rate for ethylene.

Under the provisions of Section 504 of H.R. 5640, ethylene would be subject to a tax of $17.71 per ton. This is an effective tax rate of 4.5 percent of the present price for ethylene. It is a tax rate of 4 percent of the generally prevailing estimate of its 1986 price of $440 per ton. We know of no reason why ethylene should be signaled out for a significantly higher tax rate than many other substances. We regard it as grossly unfair. If the apparent rationale used in setting the level of taxation for other substances in H.R. 5640 is applied to ethylene, its tax rate would be $13.20 per ton, not $17.71 and we urge the Committee, at the very least, to make this change in the interest of equity, fairness and consistency.

The tax rate applicable to uranium oxide in the bill is equally faulty, but in the other direction. The bill would impose a tax of $1.44 per ton on uranium oxide, apparently based on three percent of an estimated sales price of $47.90. While $47.90 is a very high price for uranium oxide, it is a price per pound, not a price per ton. The average current price for uranium oxide is about $38 per pound, or about $76,000 per ton. If the rationale of the drafters of H.R. 5640 were uniformly applied, the tax rate for uranium oxide should be the ceiling price for inorganic substance, $14.94 per ton rather than $1.44 as now provided in the bill. However, the inclusion of uranium oxide on the list in the first place is open to question because spills, tailings and wastes from its production are already the producer's responsibility under the licensing requirements of the Nuclear Regulatory Commisison, and "orphan sites" are being cleaned up under the terms of the Mill Tailing Control Act of 1978.

Our examination of just two of the tax rates in the bill have demonstrated serious errors, and gross inequities. It does not leave us with any confidence as to the fairness of the rest of the tax rates in the bill.

There are similar, serious problems with the waste end tax proposal in H.R. 5640. By structuring the tax on a "wet weight" basis, the bill is heavily and unfairly biased against water-containing wastes disposed of in underground injection wells and surface impoundments. In contrast landfilling, the disposal method that has created the preponderance of the superfund sites and problems, would contribute only about three percent of the funds predicted to be collected under the bill.

A tax based on the dry weight of hazardous wastes, in other words the actual weight of the hazardous waste, whether solids or non-aqueous liquids, would result in a fairer distribution of the tax burden.

In summary, we believe that the tax proposals in H.R. 5640 have been drafted without any clear evidence with respect to the amount of funds needed for an effective five-year program to clean up old hazardous waste sites. Furthermore, they contain serious inconsistencies, significant omissions, and mistakes in arithmetic. As a result they will be unfair in their application, and seriously distorting in their economic effects. And, as a result, the revenue estimates are likely to be little better than wild guesses.

We believe it would be far more appropriate for the Committee on Ways and Means to utilize the services of the Joint Committee on Taxation, the Treasury Department, the Environmental Protection Agency, and the hearing record to produce recommendations for a consistent, equitable system based on sound principles of taxation.

Mr. GIBBONS. Thank you, Mr. Kennedy.

Mr. Belzer.

STATEMENT OF ALAN BELZER, PRESIDENT, ALLIED CHEMICAL SECTOR, ON BEHALF OF THE ALLIED CORP.

Mr. BELZER. I am Alan Belzer, president of Allied Chemical, which is one of the five major businesses of Allied Corp. Allied Chemical employs about 14,000 people. We have sales of about $2.5 billion. I am here to tell you where we stand on Superfund.

First, we recommend that Superfund be reauthorized now and that it be reauthorized for 10 years. It should be reauthorized now to make sure that the momentum that is developing for national cleanup of hazardous waste sites is maintained. It is essential that these sites be cleaned up as quickly as possible and in as cost effective a way as possible.

Now, our studies indicate that in order to get the job done, $1 billion a year will be sufficient in order for the cleanup that has to be done. It will also be sufficient to allow for unexpected costs. We are convinced that proposing more than that amount will lead to substantial waste.

Let me tell you how we got to a billion dollars. First, the bill H.R. 5640, calls for initiation of cleanup at 150 sites a year and I think to get to that level will take extraordinary effort on the part of the EPA. There are real problems in enough resources being available within our country to get that job done, to do 150 a year.

But if we accept 150 a year, 40 percent of those, or 60 sites, are going to be done by industry.

That leaves 90 sites to do per year with Superfund money. On average, it is going to cost about $8 million to do a site. This will cost about $700 million. It has been estimated that administration will cost about $200 million. Quite frankly, I think that is high, but I will take that number. That gets you to $900 million. Allowing another 10 percent for contingencies you get to a full billion dollars a year. I said that is more than enough to do the job, and that is what our studies show.

Let me add one more point. That assumes no recovery from responsible parties on sites where Superfund pays. We estimate you will probably get about 30 percent recovery. That leaves another $200 million out there to make sure that we get the job done and that we account for inflation. So in our view, there is no question that $1 billion is more than enough to get the job done.

In terms of time, it is going to take 10 years to get the job done. And we think we ought to face that now rather than raise false hopes that this problem which has been created over decades—and there is nobody around here that thinks it hasn't been done over decades, it probably goes back to before the turn of the century in some places—is going to get cleared up in 5 years. We are not going to get it done in 5 years.

Let's talk about fund generation. The mechanism we have now for collecting the industrial portion of the tax gets the bulk of the money from a small number of companies and in my mind is inherently unfair. As I gather it, it was chosen because of ease of collection.

At this point, 70 percent of the money that is collected from industry is collected from 12 companies. I have got to add, we are not one of those 12 companies. Nonetheless, the proposal quadrupling of the feedstock tax is going to have a serious impact on us. It is going to cause serious economic dislocation in certain segments of the chemical industry. It is easy to say that the whole chemical industry makes a lot of money. The fact is that this tax has to do with certain specific segments, whether it be feedstock or whether it be waste end. It is those segments that you have to look at.

We have prepared three specific examples from our corporation on the proposed tax and I would like to talk about just one of those examples today, and that has to do with exports. The rest are in my written testimony.

As I think Ed Holmer mentioned previously, the chemical industry has a positive balance of payments of about $10 billion a year right now. We have good plants and we have a very strong economic position. We are willing to go out there and fight in the world, but make no mind, poor legislation will undercut our position.

As an example, I will take high-density polyethlyne. We produce about 800 million pounds of high-density polyethlyne each year. The industry in total produces about 5 billion pounds a year. In 1983, the industry exported about 16 percent of the high-density polyethlyne that it produces. That represents $300 million of exports. If the Superfund feedstock as proposed is quadrupled, our exports will be cut at least in half.

I am sure that there are countless other examples in other companies where you would see that the international balance of payments problem will be exacerbated if this tax is put in as proposed. The health of the businesses that are involved, those specific businesses that are involved, are going to be undermined.

Now, from our standpoint, we think the funds needed for the Superfund cleanup should come from four sources. One, you ought to continue the feedstock tax at the current levels.

Second, you ought to create a waste end tax on a dry basis and that has been covered already in other testimony.

Third, you ought to continue the general revenues at 12½ percent as in the current law.

Last, we propose that there be a special tipping fee on disposal of residential, commercial and industrial refuse.

Now, what I would like to do right now is to talk about——

Mr. **Conable**. You call it a tipping fee?

Mr. **Belzer**. Yes. When you go down to the garbarge dump, you tip over into the dump, a tipping fee.

I want to talk about that, that particular tipping fee. This is a tax that would be administered by and shared with State governments. It will provide additional funds and it will spread the cost of cleanup more equitably. As I have said, this is not an equitable tax that we have now. A little background

The national priorities list already contains many sites that have received huge quantities of trash as well as industrial wastes. Right now about 14 percent of the sites listed on the national priorities list were publicly owned landfills. It is expected that this percentage will increase in the future.

Now, it is very important to recognize that these sites handle many of the same types of chemicals as industrial waste landfills and I am talking here about toxic chemicals. I am talking about acids such as in rust removers in swimming pool cleaners, alkalis as you get in oven cleaners. Every day people are throwing out into dumps what are basically toxic chemicals from household use and I think there ought to be a tax on those things. The key features of our proposal are as follows: We impose a $3 per ton tax on disposal of residential, commercial and industrial refuse. This would be collected at the landfill. Two dollars would go to the Federal Government, $1 would go to the States.

At present, the average tipping fee is $10.80 across the country so we are not adding a tremendous amount. The revenue generated from this proposal would come to about $360 million for the Federal Government and about $180 million per year for the States.

I would like to finish by reiterating my key points.

One, Superfund should be reauthorized now for a 10-year period.

Two, $1 billion a year is more than sufficient to get the job done and more than that is going to result in lots of waste.

Three, by broadening the Superfund tax base, we not only make the costs more equitable, but we can also help maintain the competitive health of American industry. Both myself and my staff will be glad to work with the committee on getting you further data.

[The prepared statement follows:]

Statement of Alan Belzer, President, Allied Chemical Sector, Allied Corp.

My name is Alan Belzer, President of Allied Chemical, one of five major business sectors in Allied Corporation. This Sector employs about 14,000 people and has sales of approximately $2.5 billion a year.

We at Allied Corporation appreciate this opportunity to address issues raised in "HR 5640, the Superfund Expansion and Protection Act of 1984" (Superfund), particularly reauthorization, fund size and fund contribution.

Reauthorization

We recommend that Superfund be reauthorized now and that it be reauthorized for ten years. It should be reauthorized to make sure the momentum developing in our national program for cleanup of hazardous waste sites is maintained. It is essential that these sites be cleaned up as quickly as possible, and in as cost effective a way as possible. Reauthorization now will help assure that all those involved in this critical endeavor move ahead with confidence that the resources and support will be available.

As you know, the task we face as a nation is a difficult one. The EPA estimates that it will end up with some 1800 sites on its National Priorities List (NPL). If these 1800 sites are addressed at a rate of 150 sites per year (as proposed in HR 5640), it will take in excess of ten years for cleanup to be completed. These calculations are based on our estimates that the time required to clean up a site averages about three and one half years. Cleanup involves: (1) site evaluation, which may take up to 18 months;

(2) program design, which may take up to a year; and (3) actual cleanup, which often takes up to a year. The technical resources available are limited. We believe a rate of 150 sites per year is attainable in several years but is unlikely to be exceeded.

Therefore, it seems reasonable to reauthorize Superfund for a period that reflects such a realistic schedule. Reauthorization for a shorter period could raise false hopes that the problem created over many decades of ignorance and carelessness can be solved in less time. Congress should review cleanup progress after three years, using oversight procedures to assure effective cleanup is occurring.

Fund Size

Superfund must take in significantly more tax money than the $1.6 billion collected for its first five years. We believe that a funding rate of approximately $1 billion per year would more than adequately fund the cleanup program and allow for unexpected costs. The basis for $1 billion per year is as follows. HR 5640 requires that cleanup be initiated at 150 NPL sites per year. Funding for 40% of these will come from the private sector. Thus, Superfund monies would be used for the cleanup of about 90 sites per year. EPA estimates (1983) that cleanup cost per site average $7.7 million and we believe this estimate is reasonable. Thus, Superfund financed cleanups should cost about $700 million per year when averaged over the entire program. Additional funds will be necessary for administration, enforcement, remedial investigation equipment and interagency activities. HR 5640 estimates that cost will be $181 million per year (§ 505 trust fund). We think this is too high; however, we have adopted the figure to be sure the estimate is adequate. So in total this comes to about $900 million per year. Add an additional 10% contingency factor and the fund needs are at about $1 billion per year. No credit is taken for the 30% recovery from identified responsible parties EPA estimates it will collect relative to Superfund monies expended, so this $1 billion figure should actually prove to be high.

Based on our analysis above an annual funding rate of $1 billion would be sufficient. Authorizing more than this will lead to a substantial waste of money.

Our proposed funding rate may exceed what is actually spent in the program for a number of reasons; *e.g.* high recovery, greater private money cleanup, etc. The Nation should be protected from unnecessary accumulation of collected monies. Thus, we recommend that a cap on fund size be set at $1.5 billion or one and one half times the annual collection rate. Collection would be suspended for the remainder of the fiscal year in which the fund exceeded $1.5 billion.

Fund Generation

We believe the present fund generation mechanism which relies on collecting the entire industrial portion of the tax from a small group of chemical companies is inherently inequitable. It apparently was chosen because of collection ease and is not tied to the issue of who caused the problem. At this point, 70% of the industrial portion of the Superfund tax is paid by 12 companies. We are not one of those 12 companies. The proposed quadrupling of the feedstock tax will cause serious economic dislocation in certain segments of the chemical industry. Attached are three Allied case studies which demonstrate potential effects of the feedstock tax proposal contained in HR 5640.

Tar Products:	This case study shows how new chemicals added to the proposed feedstock list can result in severe economic problems for a business trying to survive in a highly competitive environment.
High Density Polyethylene:	This case study shows how a fourfold increase in the ethylene feedstock tax would result in the loss of about 50% of the HDPE export market.
Lead Battery:	This case study supports the inclusion of credits for industries which use a high percentage of recycled raw material.

We prepared three specific examples from our own Corporation on this matter. I would like to talk about one which has to do with exports.

As a matter of information to you, the Chemical industry had a positive balance of trade in 1983 of about $9 billion. As an industry, we are competitive on a worldwide basis. We have good plants and strong economic position. But make no mind, that kind of position can be undercut by poor legislation. As an example, I would like to talk about our High Density Polyethylene business. We produce about 800 million pounds a year of High Density Polyethylene, and the industry in total produces about 5 billion pounds annually. Last year 18% of High Density Polyethylene produced in the United States was exported with a value of $300 million. If the proposed superfund feedstock tax were put into effect, our exports I estimate will be cut at least in half.

I am sure there are countless other examples in other companies whereby you would see that our international balance of payments problem would be exacerbated by this tax, and the health of the businesses involved would be undermined.

It is important to understand that the burden of Superfund taxes falls on individual business areas and is not uniformly spread throughout our Corporation. Each business area must stand alone in terms of profitability and growth opportunities. Thus, although Superfund taxes will most likely not put any large corporation out of business, individual business areas within a corporation may be economically crippled or made unprofitable. The irony is that loss of business results not only in loss of jobs and economic loss to the community but also loss of tax revenue for Superfund. Thus everyone loses, needlessly.

We believe the increased funding necessary to carry out the Superfund cleanup program should come from four sources:

- continue feedstock tax at current levels.
- create a "waste-end" tax on the dry-weight of hazardous waste disposed (Chemical Manufacturers Association proposal)
- create a special tipping fee on disposal of residential, commercial and industrial refuse
- continue general revenues contribution of 12.5%

The continuation of feedstock at present levels and public revenues needs no further comment. CMA testimony at this hearing addresses the dry-weight waste-end tax proposal which we support because it provides a means of spreading the cost of Superfund more equitably among those who have contributed to the problem. At the multi-party sites, there are large shares of wastes from companies in the electronic, auto, aircraft, steel and other basic manufacturing industries. The waste-end tax proposal would apply to all companies that generate a hazardous waste.

A New Source of Revenue

As an additional source of Superfund revenue and a method of making the funding more equitable, Allied Corporation proposes a new tax should be created to go into effect in October 1987 which would be administered by and shared with state governments. This new tax would be on land disposal of residential, commercial and industrial refuse (trash).

Regardless of the size of Superfund, this proposal is a mechanism to provide an additional portion of the funds needed and to spread more equitably the cost to those who contributed to the problem. The National Priorities List (NPL) contains many sites that have received huge quantities of trash as well as industrial wastes. It is important to recognize that so-called sanitary landfills now handle many of the same types of chemicals as industrial hazardous waste landfills, for example:

- acids - rust removers, swimming pool cleaners, and some drain cleaners.
- alkalies - lye, drain cleaners, and oven cleaners.
- heavy metals - batteries, tin cans, zinc oxide, brass and chrome plated items.
- solvents - paint thinners, paint, spot removers, polishes, and septic tank cleaners.
- pesticides, herbicides, rodenticides, bactericides
- bleaches - chlorine based and peroxides
- oils

About 14% (76 sites) of the sites listed on the current NPL were publicly-owned landfills. It is expected that this percentage will increase in the future as the NPL expands to its predicted level of 1,800 sites. As we develop a better understanding of the real nature of the problem, the importance of dealing with these municipal and private landfills can only increase. It is therefore consistent with the scope of the problem to broaden the tax base to include such sites.

An example of such a state-administered tax is suggested below.

Sample Tax on Refuse

- Impose a three dollar ($3.00) a ton tax on disposal of residential, commercial, and industrial trash to be collected at the landfill [$2.00/ton to the federal government - $1.00/ton to the states].
    - includes, but not limited to, trash from households, apartment buildings, garages, supermarkets, offices, cafeterias, etc.
    - this would be in addition to an existing average tipping fee nationally of $10.80 a ton.
- The revenue generated is about $360 million per year to the federal government and about $180 million per year to state governments.
    - these figures are based on 180 million tons of trash collected and disposed of at landfills in the U.S. per year [National Solid Waste Management Association (NSWMN)].
- The tax will be collected by the states.
    - landfills generally are already registered with the states.
    - some states have such a fee collection system, *e.g.*, New Jersey and Wisconsin.

- number of sanitary landfills in United States is about 11,000 (NSWMA figure based on 1984 response by 43 states to a survey by Waste Age and Association of State and Territorial Solid Waste Management Officials).
- states will be provided funds and encouragement to enforce proper dumping practices and eliminate "midnight dumpers."

This tipping fee could generate about $540 million per year to be shared by federal (2/3) and state (1/3) governments. The state portion will provide an incentive for states to collect the funds and can be used as Superfund matching funds or to clean up non-Superfund sites. This is also the logical collection point since landfills are generally registered with the states. At the present time only a few states (e.g. New Jersey, Wisconsin) have statewide tipping fees. Therefore, a period of time would be necessary to implement the collection of this fee throughout the country. The nationwide tipping fee could be made operative beginning in October of 1987, to allow time for setting it up. By that time spending levels would have risen to a peak level where these monies would be needed. The other proposed revenue sources would be adequate until then.

We believe the national tipping fee would:

- offer an incentive for states to participate by providing funds for cleanup of non-Superfund sites
- broaden the contributor base to match more closely sources of the problem
- add a reliable source of revenue, for the next ten years, which is essential for the planning of cleanup programs
- provide an incentive for improved waste management practices

In summary, the Superfund funding scheme would be as follows:

	1985	1986	1987	1988 and on
		(in millions)		
Feedstock	$307	$307	$307	$307
Waste-end	307	307	307	307
General Revenue	86	86	136	136
Nat'l Tipping Fee	0	0	360	360
	$700	$700	$1,110	$1,110

Additional funds of about $150 million per year will come from cost recoveries and interest. We believe this funding pattern is consistent with spending needs.

I close by stressing the need for Congress to consider all these reauthorization and funding issues carefully. We will be happy to cooperate with this Committee and the Congress as you address these issues, and we greatly appreciate the opportunity you have given us to present our views today.

TAR PRODUCTS

Allied produces and sells tar distillation products from three manufacturing locations: Ironton, Ohio; Detroit, Michigan; and Fairfield, Alabama. These plants employ about 340 people. The major products include binder pitch used in the manufacture of electrodes, creosote oil used as a wood preservative and napthalene. This business is mature and highly competitive which precludes the opportunity of Superfund taxes being passed through. However, because of a shortage of coal tar, the raw material, our suppliers are able to pass through taxes to us. Allied has maintained a position in the business by improved productivity and reduced energy usage. These gains can be wiped out by the imposition of the Superfund tax proposed under HR 5640. Presently coal derivatives are exempted from paying Superfund taxes.

The following shows the effect of the Superfund feedstock tax proposed under HR 5640 for tar products:

Coal Tar (pass through)	Present	HR 5640
Dollars Per Ton	0	$3.93
Tax Dollars	0	$1,200,000
Percent Sales	0	1.5
Percent Income	0	About 19
Percent of Raw Material	0	2.2
Napthalene		
Dollars Per Ton	0	$13.82
Tax Dollars	0	$280,000
Percent Sales	0	5.3
Percent Income	0	About 50
Percent of Raw Material	0	9.5

For the Tar Products business area, the proposed Superfund tax represents about 1500% of total other taxes paid. In addition to the proposed Superfund tax burden, the business area is contributing funds to a voluntary Remedial Investigation Feasibility Study in Ironton, Ohio, and spending monies for state-of-the-art waste destruction equipment.

HIGH DENSITY POLYETHYLENE

Allied produces high density polyethylene (HDPE) resins at Baton Rouge, Louisiana. HDPE resins are used in blow molding, injection molding and extrusion processes to make a number of products such as milk and juice bottles, food containers, and drums, film, automotive parts. The market for HDPE is primarily domestic but about one billion pounds (18%) were exported in 1983. Overall the HDPE industry is very competitive with thirteen major domestic producers and many more foreign producers.

The following shows the effect of the Superfund feedstock tax proposed under HR 5640 on the United States HDPE Industry based on 1983 industry sales of 6.5 billion pounds.

Ethylene Pass Through	Present	HR 5640
Dollars Per Ton	$4.87	$17.72
Tax Dollars	$13,440,000	$49,840,000
Cost Per Pound of HDPE Resin (in cents)	0.24	0.89
Percent Sales (1983)	0.6	2.5

For the HDPE business the proposed Superfund tax would result in an increased resin cost of about 0.65 cents per pound. This increase would have significant effects on the domestic market and would have disasterous effects on the export market.

In 1983 Allied exported about 110 million pounds of resin with a value of about 33 million dollars. Our international marketing staff estimates that if the additional 0.65 cents per pound cost, proposed under HR 5640, were in place in 1983 Allied's export HDPE resins business would have been cut in half because of the inability to compete relative to price with European, South American and Asian producers. If Allied projections are extrapolated to the entire HDPE resins industry, a trade balance loss of about $150 million would be indicated.

The chemical industry, historically has contributed favorably to the Nation's trade balance ($9.04 Billion in 1983). The increase in Superfund taxes proposed under HR 5640 will have potentially severe detrimental effects on the American chemical industry's ability to compete with foreign competitors in the export market. This legislation will result in the loss of American jobs associated with this industry.

ALLIED LEAD BATTERY BUSINESS

Allied manufactures lead-acid batteries for automotive and industrial use. We believe that one of the purposes of the Superfund Act should be to encourage environmentally sound recovery as an alternative to disposal. We recommend that Congress should reduce the fee imposed on any chemical or raw material under the Act by the percentage of that chemical or raw material that is recycled into the production of new substances subject to the fee. This adjustment is particularly appropriate with regard to lead.

In 1982 Allied companies used 51,162 tons of lead and lead oxide in battery manufacture, of which some 26,082 tons of lead were recovered from lead battery plates. In other words about 51% of all lead used on Allied battery manufacturing was recovered from recycled batteries. Because this percentage and probably more of the lead used in battery manufacture in the future will be recycled, instead of disposed of, Allied believes that if a tax on lead is retained in this Act, it should be reduced by this amount. This recycling is environmentally proper and should be encouraged. Metals, when recycled, are obviously removed from potential harm to the environment which might occur if products made from them were disposed of, either in dumps or regulated land fills.

Total Battery Industry Perspective

Allied believes this adjustment is critical due to the economic impact the proposed tax will have on battery manufacturers. HR 5640 significantly expands the chemicals involved in battery manufacturing subject to tax and will increase the tax liability approximately ten fold. The original "Superfund tax" contained in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 included lead oxide in the list of chemicals subject to the tax. The typical automobile battery contains approximately 22 pounds of lead, of which approximately nine pounds is lead oxide. The newly proposed tax would apply for the first time to an additional 60%, or 13 pounds, of the lead in a typical automobile battery.

In 1982, 301,640.57 tons of lead oxide was used in battery manufacture in the United States. At a tax rate of $4.14 per ton, the 1982 tax on lead oxide was $1,248,800. An additional tax on the sulfuric acid and propylene used in battery manufacturing costs the industry approximately $373,000 for a total of $1,621,800. This already represents a very large contribution by the U.S. battery industry to the Comprehensive Environmental Response Fund. The proposed tax of $14.94 per ton would result in a total tax liability (at 1982 production rates) on lead of $11,574,844, and on sulfuric acid and propylene of $986,000. Compared to the tax under the current law, this represents an increase in tax liability of nearly 1000% for the battery manufacturing industry based on lead used.

Equality of Fees on Domestic and Imported Products

As taxes on raw materials under Superfund are increased, a significant competitive disparity arises between products manufactured domestically and those imported from overseas. This disparity is most obvious when the manufactured product, as in the case of an automotive battery, contains a substantial amount of a taxable substance (such as lead) in its original form or in a simple compound (lead oxide) which is easily measurable.

At the tax rates proposed in HR5640, the tax paid on each automotive battery will be approximately $.15. Although this would appear to be a relatively small sum, this is sufficient to create a market disadvantage for domestic producers who already face rising costs of environmental protection not incurred by many foreign manufacturers. Imports of lead acid batteries, which rose between 1980 and 1983 by 130% (from $46 to $107 million) are continuing sharply upwards.

To correct the competitive disadvantage which will be made worse by any increase in Superfund taxes, we recommend that a fee be placed on an imported product which contains fifty percent or more of a taxable chemical or its compounds equal to the costs incurred for manufacture or purchase of taxable raw materials by the domestic producer of that manufactured product.

Mr. GIBBONS. Thank you.

Our next witness on this panel is Mr. Overton.

STATEMENT OF RICHARD A. OVERTON, DIRECTOR, CORPORATE TAX DEPARTMENT, MONSANTO CO.

Mr. OVERTON. Mr. Chairman, my name is Dick Overton and I am the director of the Corporate Tax Department of Monsanto Co.

Monsanto supports reauthorization of the Superfund. Our concern is over the funding levels and taxing methods. Monsanto's chairman, Dr. Louis Fernandez, has appeared before the Energy and Commerce Committee in support of an efficient and workable Superfund law to cleanup problem hazardous waste sites. I reaffirm that support.

My purpose today is to provide the Ways and Means Committee with Monsanto's views on the fund size and supporting taxation methods set forth in H.R. 5640; and with an illustration of the disproportionate impact the bill would have on the acrylonitrile industry.

First, Monsanto supports Superfund in the range of $850 million a year annually. The almost $2 billion per year Superfund proposed by H.R. 5640 far exceeds EPA's apparent needs and ability to effectively and efficiently spend such moneys.

Second, Monsanto supports the current petrochemical feedstock tax rate. The rate of increase proposed by H.R. 5640 imposes excessive financial burdens on a handful of companies. We believe that this is an unnecessary burden in view of the lack of information on the fund size.

Third, Monsanto supports the principle of a waste disposal tax. However, H.R. 5640 perpetuates a narrow tax base by taxing waste on a wet-weight basis rather than a dry-weight basis. This approach imposes a disproportionate burden on industries which generate large quantities of liquid waste rather than solid waste. In other words, the proposed legislation taxes water, not waste.

As an alternative, Congress should adopt a dry-weight tax which should be set at $50 per ton. The proposed legislation appears to tax waste treatment as well as disposal. The inclusion of waste treatment could lead to an unconscionable tax burden conservatively estimated at $2 billion to $6 billion a year. The legislation should make it clear that the tax is on disposal and not on treatment.

Turning to the economic impact of the Superfund, the imposition of an excessive Superfund tax will make the U.S. chemical industry less competitive in the international markets. The U.S. chemical trade surplus dropped 26 percent in the last 3 years due to strong competition abroad. Accordingly, such export products enjoy only a slim profit margin and can ill afford the increased costs brought about by H.R. 5640.

The proposed legislation would seriously jeopardize those segments of the chemical industry competing in international markets. It is important to note that selling prices are set by foreign competition who are not impacted by U.S. tax costs. In the case of Monsanto, one specific example of a disproportionate impact on the export product is acrylonitrile. Acrylonitrile is used to produce acrylic fibers and plastic resins. Consumer products such as sweaters, carpets, refrigerators, and auto components are made from acrylonitrile or its derivatives. There is little room for price increases to absorb additional tax cost because the world price which currently stands at about 33 to 35 cents per pound is depressed due to world overcapacity.

The proposed tax increase would add about 2 cents a pound to the cost, which is about 6 percent of the sales price of acrylonitrile which is more than the current profit margins. It is important to note that over 40 percent of the domestic production is currently being exported, thus, it is clear that the acrylonitrile industry is not isolated from world markets. In fact, if the domestic industry is made less competitive by additional taxes, foreign producers are prepared to cut into Monsanto's export business.

Simply stated, the increased tax burden which would be imposed by the bill would make the acrylonitrile business less competitive on a world basis and could seriously jeoparidze the industry. This means jobs. It is estimated that in the acrylic fiber industry alone, about 100,000 U.S. jobs are dependent on U.S.-based acrylic products. Moreover, because of economic conditions, we have already heard that the chemical industry has 50,000 fewer employees today than it had just a few years ago.

Our concern is that H.R. 5640 could accelerate this trend. The acrylonitrile business is but one example of the effect that H.R. 5640 would have on our Nation's economy, especially those industries that are committed to export sales. This committee should not adopt questionable tax policy, mainly the unfair imposition of narrow and selective excise taxes. This committee should ensure that Superfund taxes are fairly distributed among all industries who generate hazardous waste.

To assist the committee in developing sound Superfund tax policy, Monsanto offers the following alternatives and suggetions for serious consideration. I have already addressed the need for a realistic fund size, the advisability of using a dry-weight basis for taxing waste disposal, and the importance of not taxing waste treatment. In addition, if the wet-weight basis is retained, the tax should be lowered to $2 per wet-weight ton for deepwell injection.

The Energy and Commerce Committee has already recognized the need to reduce the tax for this category and recommended lowering it from $15 to $5 per wet ton. However, a further reduction is needed to ensure the various disposal methods are treated equitably. The unfairness faced by industries which have to pay upwards of 6 percent of their selling price in Superfund-related taxes should be lessened. This can be done by providing a cap on the taxes any given product bears. The tax should be set at a percent of selling price, possibly 2 percent, which is consistent with the original Superfund tax rate structure.

Monsanto stands ready to work with you and your staff on these and other options which will result in a more workable and equitable Superfund.

[The prepared statement follows:]

STATEMENT OF RICHARD A. OVERTON, DIRECTOR, CORPORATE TAX DEPARTMENT, MONSANTO CO.

My name is Richard A. Overton, Director of the Corporate Tax Department on Monsanto Company, a multinational manufacturer of a widely diversified line of products such as chemicals, agricultural products, man-made fibers, electronic materials, industrial process controls and other capital equipment. With sales amounting to more than $6 billion in 1983, we manufacture or market our products in every state and in about 100 other nations. More than 50,000 people are employed by Monsanto worldwide, with 39,000 located in the United States.

Monsanto's chairman, Dr. Louis Fernandez, has appeared before the Energy and Commerce Committee in support of a robust, workable Superfund law to clean up problem hazardous waste sites. I reaffirm that support. Monsanto intends to play a constructive role in the reauthorization process by presenting views and offering alternatives regarding the best way for the nation to proceed with the hazardous waste cleanup program.

My purpose today is to provide the Ways and Means Committee with Monsanto's views on the fund size and supporting taxation schemes set forth in H.R. 5640; and with an illustration of the disproportionate impact the bill would have on the acrylonitrile industry. Briefly stated, we are concerned that the amount the bill seeks to raise through taxation appears to exceed EPA's hazardous waste cleanup needs and spending capabilities. Furthermore, H.R. 5640 perpetuates an inequitable, narrow taxpayer base. This is despite the addition of a hazardous waste disposal tax, which needs to be modified to provide greater incentives for controlling hazardous waste generation, and to avoid economic dislocation.

PROPOSED FUND SIZE EXCESSIVE

Under H.R. 5640, the tax burden would increase more than five-fold, from a $307 million per year "feedstock" tax to an annual "feedstock" levy of $1.2 billion, and a "waste-end" tax of about $500 million per year, for a total of almost $1.7 billion per year. Because the language of the bill is so unclear, these estimates provided by the bill's sponsors are open to dispute. For example, if treatment is taxed in addition to disposal, $10 to 30 billion could be raised annually by the waste end tax, according to the Chemical Manufacturers Association.

More confusion on this question, as well as some improvements on other points, are contained in the recommendations transmitted to this committee by the Energy and Commerce Committee. By exempting some but not all forms of waste water treatment, the recommendations, perhaps inadvertently, imply that even this type of treatment is a taxable event, thus adding to the confusion. I will address this issue at greater length later in my testimony. The improvements recommended by The Energy and Commerce Committee include a suspension of taxes if the total fund reaches $3.2 billion, and a reduction in the hazardous waste tax for deep injection disposal wells, from $15, to $5 per wet ton. However, these steps do not go far enough and they fail to adequately deal with the excessive size of the fund.

Supporters of H.R. 5640 claim the vast funding increase is needed to accelerate the cleanup program. However, no one has substantiated that this will be accomplished by such a massive increase in funds. In fact, the Superfund program will reach a point at which further spending could lead to wasted dollars, rather than more hazardous waste cleanup.

According to EPA Administrator William Ruckelshaus, the cleanup process is difficult to accelerate by statutory mandate because of physical limitations within the federal government, the states and private industry. "Time constraints," he told the Energy and Commerce Committee, "thus are inherent in the process itself." For example, under Superfund, an abandoned waste site can be cleaned up only if another approved site or disposal facility is available to receive the waste. Time, and public cooperation, will be needed to locate these safe sites. For example, cleanup at Times Beach, Missouri, is being delayed because of this requirement. In addition, more scientists and technical experts are needed, and the capacity of existing analytical laboratories qualified to handle organic sample analysis already is strained to the limit.

These bottlenecks can and should be cleared. The point is that it will take time, regardless of the amount of money made available by H.R. 5640. Therefore, the annual funding levels for Superfund should reflect this reality.

Total funding needs over the life of the cleanup program have been examined by the EPA, and the agency currently is studying how much financing will be needed on an annual basis. When EPA prepared a report last December entitled "Superfund Task Force Preliminary Assessment", it set a 14-year horizon for completion of an 1,800 site cleanup program, and estimated total costs at $12 billion. While EPA did not fix an optimum annual funding level, independent calculations based on the EPA data point to $850 million per year, which Monsanto and the chemical industry support. EPA's formal recommendation on an annual spending level is expected in the December 1984 report to Congress mandated by the Superfund law.

TAXATION MECHANISMS INAPPROPRIATE

The huge size of the H.R. 5640 Superfund, much more than the hazardous waste cleanup program can reasonably spend, has led to the inclusion of inappropriate tax increases and tax mechanisms to finance it.

Monsanto supports the current petrochemical feedstock tax rate, but not the rate increase proposed by H.R. 5640. The legislation would continue the inequity of a system which requires only 12 companies to pay almost 70 percent of the Superfund taxes collected. Moreover, the proposed rate hike would dramatically increase the burden imposed on these companies and their customers, just as they are struggling to recover from the recession.

Monsanto also supports the principle of a hazardous waste tax. Such a tax could result in broadening the base of the Superfund tax to more closely reflect the sources of the hazardous waste problem being addressed by the program. It could also serve as a financial incentive to control hazardous waste production.

However, H.R. 5640 perpetuates the narrow Superfund tax base by taxing hazardous waste on a wet weight, rather than dry weight, basis. This approach imposes a disproportionate burden on some industries because they generate large quantities of water diluted, rather than solid, wastes. The tax burden would fall to a greater extent on injection well disposal rather than being spread uniformly over it and the other two principal disposal methods, landfill and impoundment. A wet weight tax basis also diminishes the environmental benefits of a hazardous waste tax. Instead of reducing hazardous waste generation in order to manage their tax burden, companies will more likely simply reduce the amount of water in their waste.

Thus, for equity and environmental reasons, Congress should tax hazardous waste rather than water. It can do this by adopting a dry weight basis for the tax, which should be set at $50 per ton. Two objections have been raised to using a dry weight basis: that it is technically too difficult to administer and that it would not be a secure revenue source. On the contrary, widely accepted procedures do exist for measuring hazardous waste on a dry weight basis, and a dry weight basis will not lead to tax base erosion over time.

As I noted earlier, whether treatment is taxed in addition to disposal needs to be clarified. Although the waste-end tax provisions of H.R. 5640 suggest that "disposal" is the taxable event, the term is defined by reference to a broad and ambiguous definition contained in the Resource Conservation and Recovery Act (RCRA). The definition could lead to imposition of the tax on treatment as well, a possibility reinforced by inclusion in the recommended language of exemptions for certain types of treatment.

Inclusion of treatment, along with disposal, as a taxable event would remove any incentive to reduce disposal by treating wastes to render them non-hazardous. From the standpoint of tax administration, it would lead to difficult questions about when process operations stop and hazardous waste treatment begins, and about whether and to what extent waste water treatment operations would be included under the tax. From the perspective of revenue generation, the inclusion of treatment could lead to an unintended and unconscionable tax burden of $10 to $30 billion annually, according to the Chemical Manufacturers Association. Finally, from the standpoint of equity, the inclusion of treatment could lead to unfair double taxation, first for treatment and then for disposal.

A final point, regarding tax administration, involves who should pay the tax itself, the generator or the disposer. It would be far more efficient for the federal government to impose the tax on the latter rather than the former. It would reduce the number of taxpayers to an administratively manageable level, about 400 potential taxpayers, and apply the tax to the disposal of hazardous waste on or in the land, the source of the Superfund site problem.

JOBS AND INTERNATIONAL TRADE

The imposition of an excessive tax burden could make the U.S. chemical industry less competitive in the international market, and could slow reinvestment in the domestic chemical industry.

A realistic fund size and other modifications of H.R. 5640 will help preserve U.S. jobs in the chemical and allied industries, and protect our nation's international competitive position in chemicals. The U.S. chemical trade surplus has, due to strong competition abroad, dropped 26 percent in three years. Moreover, because of economic contraction, the industry has 50,000 fewer employees than a few years ago.

In particular, H.R. 5640 would seriously jeopardize segments of the chemical industry which (1) compete in the international market where prices are set regardless of U.S. tax policy, (2) confront stiff foreign competition here and abroad, (3) enjoy only slim profit margins as mature commodities businesses, (4) face the prospect of closing plants, and (5) serve customer industries with similar challenges.

Monsanto is dealing with many of these forces as a major participant in the acrylonitrile industry, which would be significantly affected by H.R. 5640. The case of this industry argues persuasively for changes in the bill.

THE ACRYLONITRILE INDUSTRY

Acrylonitrile is made from propylene and ammonia and is used to produce acrylic fibers and plastic resins. Consumer products such as carpets, sweaters, refrigerators, plastic pipe, auto components, safety windows, drinking cups and tape reels are based on acrylonitrile and its derivatives.

Worldwide, the acrylonitrile industry suffers from overcapacity. Total capacity now stands at 9 billion pounds per year, but the utilization rate has stood at only 70 percent during recent years. This depresses the world price, now approximately 33 to 35 cents per pound, leaving little room for a price increase or an adequate profit margin to absorb additional tax costs.

Domestically, utilization has been much better with production running at 2.1 billion pounds per year, just below the rated capacity of 2.25 billion pounds per year. However, this has only been accomplished because 40 percent of domestic production is exported, principally to Japan, Korea and Turkey.

Thus, the domestic acrylonitrile industry, despite its better utilization rate, is not isolated from the world market. In fact, it depends on world markets. Worldwide overcapacity means that, if the domestic industry is made less competitive by additional taxes, foreign producers are prepared to cut into our export business.

With prices skirting costs and leaving less than the margin required to justify reinvestment, it should come as no surprise that the industry is contracting. For example a production unit in Memphis, Tennessee was permanently closed in 1982. Currently, four producing companies operate six production units, one of which is in Ohio, while the others are located along the Texas-Louisiana Gulf Coast.

Simply stated, the acrylonitrile industry does not have a deep pocket and it is crucially dependent on the ability, now endangered by H.R. 5640, to continue exporting a large portion of its production into the world market.

THE ACRYLONITRILE INDUSTRY'S CUSTOMERS

About 50 percent of the acrylonitrile consumed in this country is used in acrylic fibers production, which averages about 700 million pounds per year. Like the acrylonitrile industry, the acrylic fibers industry is embattled. Competition is tough at home and abroad, prices are weak because of this competition, and profit margins are razor thin.

Since 1978, acrylic fiber capacity has fallen from 865 million pounds per year to the current level of 805 million pounds per year. The shakeout in the industry led one company to exist the acrylic fibers business, leaving four firms producing acrylic fibers in the United States. Their four plants are located in Alabama, Florida, Virginia and South Carolina.

As we continue to move down the acrylonitrile stream, the customers of the acrylic fibers industry are not in much better shape either. The downstream textile and apparel industries are confronting competition from low labor cost nations. Imports from these nations represent about 20 percent of total U.S. textile consumption, reaching 35 percent in wearing apparel alone.

Here again, we have a cost sensitive industry attempting to meet the challenge of imports and to keep jobs in this country. The textile and apparel industries account for more than two million jobs, many of them located in southeastern states like North Carolina, South Carolina and Georgia, as well as in garment centers like New York. Because U.S. produced acrylic fibers are represented in five percent of the total textile consumption, about 100,000 jobs can be linked to the fiber.

The pattern does not change for the second major acrylonitrile customer, plastic resins, called ABS/SAN. Production and the number of producers of the plastic resins based on acrylonitrile both have recently declined. Instead of five firms, there are now three in the industry, and production now stands at 1.1 billion pounds per year. Ten plants located in California, Connecticut, Illinois, Iowa, Massachusetts, Michigan, Mississippi, Ohio and West Virginia manufacture plastic resins based on acrylonitrile for use by molding shops throughout the country.

Competition comes from imports, which are a small but significantly increasing part of domestic consumption, and other types of resins produced both in the United States and abroad. For example, between 1982 and 1983 ABS imports tripled and, if current trends continue, 1984 imports could double those of 1983. The industry, therefore, is cost sensitive and does not enjoy healthy profit margins.

THE IMPACT OF SUPERFUND: THE FEEDSTOCK TAX

Although acrylonitrile currently is not included in the schedule of substances taxed under the Superfund, it does bear the pass-through burden of the tax imposed on its principal feedstocks, ammonia and propylene. The cost of the pass-through, which is separately listed and billed on sales invoices for ammonia and propylene, amounts to about one percent of the sales price. If the feedstock tax on ammonia and propylene is increased to the extent proposed by H.R. 5640, the levy will amount to three percent of the acrylonitrile sales price, or about $15 to $20 million per year for the entire industry.

Unlike propylene and ammonia producers, the acrylonitrile industry will not be able to list the tax as a separate invoice item and pass it directly on to the next customer. The tax becomes a part of the cost of goods sold, and can only be recovered with an increase in the market price, a highly unlikely possibility because of stiff international competition.

THE IMPACT OF SUPERFUND: HAZARDOUS WASTE DISPOSAL TAXES

The future of the acrylonitrile industry will be further undermined if the $5 per wet ton hazardous waste tax recommended by the Energy and Commerce Committee is imposed. It would result in a total Superfund tax burden of six percent of the acrylonitrile sales price: three percent for hazardous waste disposal and three percent for petrochemical feedstocks. This hazardous waste disposal tax would total about $25 to $30 million per year for the entire industry. In fact, the total hazardous waste disposal and petrochemical feedstock tax of $40 to $50 million per year is excessive when compared to acrylonitrile's current profit margin.

THE IMPACT OF SUPERFUND: IMPLICATIONS

The imposition of Superfund taxes amounting to 6 percent of sales price will have significant implications for the acrylonitrile industry. Prices will have to be raised because profit margins are already very narrow, even less than the proposed additional tax burden. This action will make U.S. acrylonitrile less competitive internationally, even to the point of driving it out of the crucial export market. The availability of excess international acrylonitrile capacity to replace our export sales will lead to, even accelerate, our retreat.

Domestically, production capacity formerly supported by export sales will have to be rationalized, with the likelihood that some high cost plants will have to be shut down. Remaining domestic customers of acrylonitrile, especially the acrylic fibers industry, will bear the pass-through burden of the added taxes.

A similar cycle will then be set in motion for the acrylic fibers industry, which is suffering under adverse economic conditions despite the recovery. Facility rationalization and plant close-downs probably will occur as the impact of the tax and its economic effects ripple downstream from acrylonitrile.

Monsanto participates in both the acrylonitrile and acrylic fibers industries. From its experience, 1983 profit levels were significantly less than acceptable. Although the nation is in the midst of an economic recovery, we do not expect a major profit improvement in 1984. Passage of a Superfund bill with significant tax levies effective in 1985 would make profits even less acceptable, thus putting into doubt the future viability of these businesses.

RECOMMENDATIONS

The acrylonitrile industry is one example of the damage H.R. 5640 would inflict on parts of our economy, especially those which are heavily committed to export sales, or operate in highly competitive markets. This committee, taking into account the case of the acrylonitrile and other industries, should avert the adoption of questionable Superfund tax policy, namely the unfair imposition of narrow, selective excise taxes. This committee should ensure that Superfund taxes are fairly distributed.

The assist the committee in developing sound Superfund tax policy, we offer the following alternatives and suggest their serious review:

The size of Superfund should not exceed EPA's hazardous waste cleanup needs and spending capabilities. Monsanto and the Chemical Manufacturers Association support an annual fund size of $850 million.

The hazardous waste disposal tax should be based on dry weight rather than wet weight. Setting a dry weight tax at $50 per ton would generate approximately 300 million per year. It would spread the tax burden uniformly over the three major waste disposal methods of injection, landfill, and impoundment. In addition, an incentive would be created to improve the hazardous waste management options of treatment, recovery and recycling. Moreover, it would help avoid an initial rapid erosion of the tax base which would occur with the use of the wet weight basis because of water content reduction.

If the wet weight basis waste disposal tax is retained, the tax should be lowered to $2 per wet ton for deep injection disposal wells. The Energy and Commerce Committee recognized the need to reduce the tax for this category, and recommended lowering it from $15 to $5 pet wet ton. A $2 rate would more closely balance the total Superfund tax income from the waste disposal methods of injection, landfill and impoundment, thus minimizing the inequity imposed on generators of high volume waste streams and the incentive to reduce water content rather than waste generation.

The unfairmess faced by industries which may have to pay upwards of 6 percent of their selling prices in Superfund related taxes should be lessened by providing for a cap on the taxes any given product bears through a combination of feedstock tax, feedstock tax pass-through and waste end tax. The cap should be set at a percent of selling price, possibly two percent.

Treatment should clearly be excluded as a taxable event. The waste end tax should be applied only to disposal of hazardous waste by landfill, deep-well injection, ocean disposal, land farms, and surface impoundment for more than one year. Included would be facilities permitted under the Resource Conservation and Recovery Act (RCRA) and the Safe Drinking Water Act (SDWA), and waste required to be disposed in such facilities.

The disposer, rather than the generator, should be liable for the tax, thereby enabling EPA and the IRS to substantially simplify the tax collection process from several thousand taxpayers to a few hundred.

Monsanto stands ready to work with you or members of your staff on these or other options which will result in a workable and robust Superfund program.

Mr. GIBBONS. Thank you.

Our next witness is Jim Hartlage.

STATEMENT OF JAMES HARTLAGE, VICE PRESIDENT OF TECHNOLOGY, STEPAN CO.

Mr. HARTLAGE. I am Jim Hartlage. I appear today to discuss the implication of the term "xylene" as used in the Hazardous Substance Response Revenue Act of 1981 and subsequently defined by the Internal Revenue Service.

Among the basic chemicals on which Congress imposed a Superfund tax in 1981 was xylene, without further definition. Such is the case in the present bill H.R. 5640. Neither the present bill nor the 1981 act states that xylene and its isomers are to be taxed. Rather, both the H.R. 5640 and the 1981 act speak only to xylene.

However, in October 1983, the Internal Revenue Service published for the first time its proposed regulations covering, among other things, its definition of xylene.

This proposed definition downstreams the tax burden to those who would buy ortho, para, or metaisomers. We believe this to be in contravention of the expressed intent of Congress and the general policy of the Internal Revenue Service of taxing at the lowest and broadest level.

This proposed definition of xylene, quite frankly, took us by surprise. It is chemically and commercially wrong, as indicated in the attached paper by Dr. Ali Cinar and it adds an unnecessary level of taxation.

We believe Congress intended the tax to be imposed only once, and then only at the beginning of the production cycle, not downstreamed to others except as economic conditions warrant. By changing this intent, the Internal Revenue Service has unnecessarily created more paperwork with the credit/refund mechanism of the act without producing any increased tax revenue. The maximum tax which can be levied on xylene will be raised on either the sale or use of xylene. Beyond that point, only more paperwork and not revenue is created.

The Senate Congressional Record of December 13, 1980, referring to the tax on chemical substances, agrees with our position on this in that it should be taxed at the broadest level. The IRS definition also differs from generally accepted chemical nomenclature and other Government agency definitions with which we concur. For example, the Department of Energy Regulations on Mandatory Petroleum Price, section 212.31 CRF define xylene as follows: Xylene means a mixed stream of aromatic hydrocarbons whose chemical composition is predominantly C_8H_{10} containing, in whole or substantial part, the isomers paraxylene, metaxylene, and orthoxylene.

In other words, the DOE is saying xylene is a mixture and not individual parts or isomers, whereas the IRS is saying xylene means a mixture and each individual component should be taxed.

Under our proposal, to use the DOE xylene definition, the tax implications will be uniformly fair to all who use xylenes. If one is dealing with a fully integrated oil company, the oil company is the manufacturer of xylene, which uses the xylene to make orthoxylene, paraxylene, and paint solvents and hence pays a tax on xylene's use. To the extent economic conditions allow, the tax is passed through to all users fairly.

Finally, for whatever reason, if it should be felt that the definition of xylene is correct, a concept which we vigorously contest, we would ask that H.R. 5640 be expanded to provide that due to the lateness of the IRS regulations, that the definition be applied prospectively. The regulations were published some 2½ years after enactment of the law and it will, in all likelihood, be some time before the regulations are finalized.

We relied upon common chemical and commercial definitions when defining the chemical substances in the act and have paid taxes on all items which meet such definitions, including mixed xylene, which we use as a detergent component intermediate. At no time did we ever feel that in our case, orthoxylene would be classified by itself, as a taxable chemical, particularly in view of the xylene definition in the Department of Energy regulations.

As such, we cannot now passthrough 3 years of taxes to our customers. We would, therefore, strongly urge this committee to make this particular definition of xylene, if not changed, posteffective in operation rather than retroactive.

In conclusion, for the reasons stated before and for the discussion of Dr. Cinar in his paper presented previously to this committee, Stepan Co. feels the appropriate definition of xylene should be that of the DOE and consistent with the accepted chemical dictionary definition of xylene.

Thank you, sir.

[The prepared statement follows:]

STATEMENT OF JAMES HARTLAGE, VICE PRESIDENT OF TECHNOLOGY, STEPAN CO.

My purpose in appearing before you today is to discuss the implication of the term "xylene" as used in the Hazardous Substance Response Revenue Act of 1981 and subsequently defined by the Internal Revenue Service.

Among the basic chemicals on which Congress imposed a superfund tax in 1981 was "xylene", without further definition. Such is the case in the present Bill H.R. 5640. Neither the present Bill nor the 1981 Act states that xylene and its isomers are to be taxed. Rather, both the H.R. 5640 and the 1981 Act speak only of xylene.

However, in October, 1983, the Internal Revenue Service published for the first time its proposed regulations covering, among other things, its definition of xylene, which is as follows: "Xylene is an aromatic hydrocarbon of the general formula C_8H_{10}. Xylene includes mixed xylene, metaxylene, orthoxylene, and paraxylene. Xylene is also called dimethyl benzene."

This proposed definition downstreams the tax burden to those who would buy ortho, para, or meta isomers. We believe this to be in contravention of the expressed intent of Congress and the general policy of the Internal Revenue Service of taxing at the lowest and broadest level.

This proposed definition of xylene, quite frankly, took us by surprise. It is chemically and commercially wrong, as indicated in the attached Paper by Dr. Ali Cinar, and, it adds an unnecessary level of taxation.

We believe Congress intended the tax to be imposed only once, and then only at the beginning of the production cycle, not downstreamed to others except as economic conditions warrant. By changing this intent, the Internal Revenue Service has unnecessarily created more paperwork with the credit/refund mechanism of the Act without producing any increased tax revenue. The maximum tax which can be levied on xylene will be raised on either the sale or use of xylene. Beyond that point, only more paperwork and not revenue is created.

The Senate Congressional Record of December 13, 1980, referring to the tax on chemical substances, states: The taxes are to be imposed at the beginning of the commercial chain of production, distribution, consumption, and disposal of hazardous substances. . . . By collecting a tax at the beginning of the production cycle, this tax system uses the efficiency of the market place to automatically and broadly distribute the risks. . . ." [end of quote]

The IRS definition also differs from generally accepted chemical nomenclature and other government agency definitions with which we concur, for example, the Department of Energy Regulations on Mandatory Petroleum Price § 212.31 CRF define xylene as follows: "Xylene means a mixed stream of aromatic hydrocarbons whose chemical composition is predominantly C_8H_{10} containing, in whole or substantial part, the isomers para-xylene, meta-xylene, and ortho-xylene."

In other words, the DOE is saying xylene is a mixture and not individual parts or isomers, whereas the IRS is saying xylene means a mixture and each individual part.

If I may, to make the problem a little more understandable, let us assume that a tax is levied on soybeans and let us assume that I am a user of soybean oil. To make soybean oil, I have to "crush," or use the soybeans to get the oil. Now the Internal Revenue Service defines soybeans to mean soybeans, its meal and its oil, so that now, not only are soybeans taxed, but products resulting from its use. In the same manner the IRS has taxed the products of xylene. It is commercially impossible to obtain orthoxylene without using xylene. Hence, to us it seems reasonable that the tax should be on the first use of xylene and not its end product.

Under our proposal, to use the DOE xylene definition, the tax implications will be uniformly fair to all who use xylenes. If one is dealing with a fully integrated oil company, the oil company is the manufacturer of xylene, which uses the xylene to make orthoxylene, paraxylene, and paint solvents and hence pays a tax on xylene's use. To the extent economic conditions allow, the tax is passed through to all users fairly.

If a non-integrated manufacturer buys xylene and uses it to make orthoxylene, that processor is not the manufacturer of the xylene and hence pays no tax on the use of the xylene to make orthoxylene. The government would, however, receive the superfund tax on the sale of xylene from his supplier. Hence, no loss of revenue.

In both instances, the Government receives the same amount of tax revenue.

Finally, for whatever reason, if it should be felt that the definition of xylene is correct, a concept which we vigorously contest, we would ask that H.R. 5640 be expanded to provide that due to the lateness of the IRS regulations, that the definition be applied prospectively. The regulations were published some two and one half years after enactment of the law and it will, in all likelihood, be some time before the regulations are finalized. We relied upon common chemical and commercial definitions when defining the chemical substances in the Act and have paid taxes on all items which meet such definitions, including mixed xylene, which we use as as a detergent component intermediate. At no time did we ever feel that in our case, orthoxylene would be classified, by itself, as a taxable chemical, particularly, in view of the xylene definition in the Department of Energy Regulations. As such, we cannot now pass through three years of taxes to our customers. We would, therefore, strongly urge this Committee to make this particular definition of xylene, if not changed, post-effective in operation rather than retroactive.

In conclusion, for the reasons stated before and for the discussion of Dr. Cinar in his paper presented previously to this Committee, Stepan Company feels the appropriate definition of xylene should be that of the DOE and consistent with the accepted chemical dictionary definition of xylene.

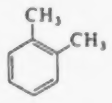
Report on Xylene, O-xylene, M-xylene and P-xylene

Purpose

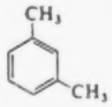
The purpose of this report is an explanation of various forms of xylene based on their different molecular structures, their different techniques of production and their different utilization in the chemical and petrochemical industries.

Definition

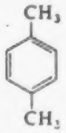
"Xylenes and ethylbenzene are C_8 benzene homologues with the molecular formula C_8H_{10}. The three xylene isomers are o-xylene, m-xylene, and p-xylene, which differ in the positions of two methyl groups on the benzene ring. The term mixed xylenes describes a mixture of ethylbenzene and the three xylene isomers" [1]. The formula representations showing the positions of methyl ($-CH_3$) and ethyl ($-CH_2CH_3$) groups are:



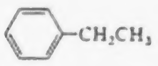
Orthoxylene



Metaxylene



Paraxylene



Ethylbenzene

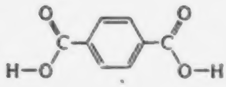
The mixed xylenes are manufactured from naphtha or other aromatics. The xylene isomers orthoxylene, metaxylene and paraxylene (o-xylene, m-xylene, p-xylene; respectively) are obtained from mixed xylenes by further separation processes (See section on Manufacture of Xylenes).

Industrial Uses

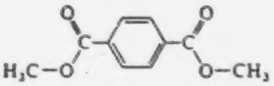
The xylene isomers and mixed xylenes have different uses and as raw materials they are not interchangeable. This is because the position of methyl groups are clearly specified and fixed for each of these products.

A) Mixed xylenes are used in gasoline to increase the octane of gasoline. They are also used as solvents in the paint and coatings industry.

B) P-xylene is used as a raw material for the manufacture of terephthalic acid and dimethyl terephthalate, both used to manufacture polyester synthetic fibers:



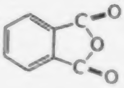
Terephthalic acid



Dimethyl terephthalate

Poly(ethylene terephthalate) fibers are used in blends with cotton for household fabrics and carpets.

C) O-xylene is used as the feed for phthalic anhydride:



Phthalic anhydride

Phthalic anhydride is a starting material for plasticizers for polyvinyl chloride.

D) M-xylene is used for the manufacture of isophthalic acid and ethylbenzene is a raw material for styrene manufacture.

The consumption of mixed xylenes produced in the U.S. is distributed roughly as given in Table 1.

Table 1. Usage of Mixed Xylenes Production (in Percentages) [2]

Gasoline blending	10-25%
o-xylene production	10-15%
m-xylene production	1%
p-xylene production	50-60%
ethylbenzene production	3%
solvents	10%

The supply and demand for xylene isomers in the United States in 1982 is given in the Table 2.

TABLE 2 *

1982 (K TONS)

	o-xylene	m-xylene	p-xylene
Production	364		1,538
Imports	11		35
Exports	178		392
Apparent Consumption	197		1,181
Use in production of:			
phthalic anhydride	210		
isophthalic acid			
dimethyl terephthalic			763
terephthalic acid			587
other	6		4
U.S. Year-End Capacity	463		2,254
Production/Capacity Ratio	0.79		0.68

Physical Properties and Equilibrium Mixtures

Since o-xylene, m-xylene, p-xylene and ethylbenzene are isomers, they have the same molecular weights. The location of the methyl groups affect the physical properties (Table 3). The boiling point difference between o-xylene and m- or p-xylene is 5°C. The freezing point difference between m-xylene and p-xylene is 50°C.

*Chemical Data, Inc.

Table 3. Physical Properties of Xylene Isomers and Ethylbenzene [1]

Property	o-xylene	m-xylene	p-xylene	ethylbenzene
molecular weight	106.167	106.167	106.167	106.167
density at 25°C (g/cm^3)	0.8802	0.8642	0.8610	0.8671
boiling point (°C)	144.41	139.12	138.37	136.16
freezing point (°C)	-25.182	-47.872	13.263	-94.975
dipole moment of liquid (c.m.)	0.51	0.30	0	0.36

The equilibrium concentrations of xylene isomers and ethylbenzene in a mixture is a function of the temperature of the mixture (Fig. 1).

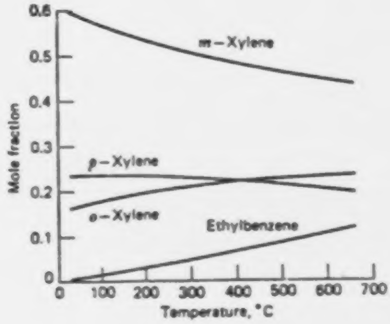


Figure 1. Equilibrium concentrations for C_8-aromatic compounds [1].

Specifications of Commercial Xylene Isomers

Typical analyses of xylene isomers and ethylbenzene are given in Table 4.

Table 4. Typical Specifications of Commercial O-xylene, M-xylene, P-xylene and Ethylbenzene [1]

Assay	ASTM Method	O-xylene	M-xylene	P-xylene	Ethylbenzene
purity (mol%)	D1016	96.0	98.5	99.1	99.5
distillation range (°C)	D850	144.0-145.0	138.5-139.7	137.9-138.4	
specific gravity (15.5°C/15.5°C)	D891	0.884	0.869	0.866	0.871
flash point, °C	D56	31	29	27	15
color Saybolt	D156	20	>30	>30	>25
autoignition temperature °C		460	530	530	432

Manufacture of Xylenes [1,3]

Xylenes are mostly manufactured from the 65-175°C cut of straight-run petroleum fraction (naphtha) or from products of an isocracker (Fig. 2). In a reformer reactor (unit A) cyclization and aromatization of straight molecules (paraffins) take place. The product aromatics are a mixture of benzene, toluene, xylene isomers and higher aromatics. Unreacted butane and lighter molecules, are removed by distillation, remaining non-aromatics are separated by liquid extraction (units B,C,D). Benzene and toluene in the remaining aromatics stream are separated from the xylene isomers and heavier aromatics by distillation (unit E). Depending on final products desired, separation of xylene isomers and heavier aromatics is conducted. Xylenes can also be manufactured by disproportionation of toluene to give benzene and xylenes or by reacting toluene and c_9-aromatic compounds to give xylenes. A small fraction of mixed xylene production is based on coke-oven light oil from coal.

The separation of xylene isomers requires distillation and crystallization. The boiling points are quite close (Table 3). The 5°C temperature

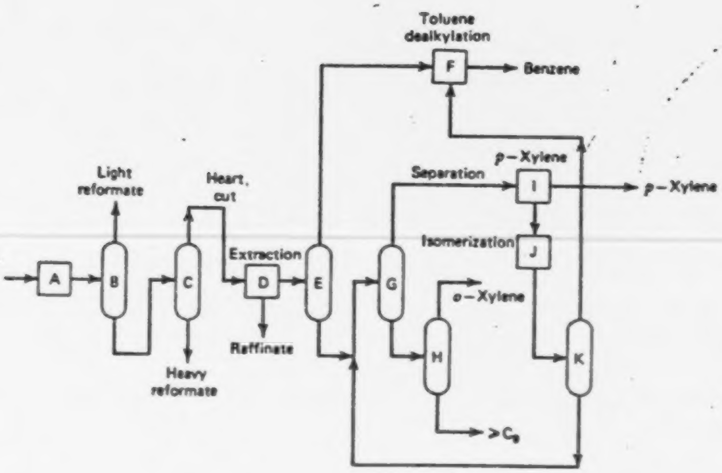

Toluene dealkylation
F
Benzene
Light reformate
Heart cut
p-Xylene
Separation
I
p-Xylene
Isomerization
J
Extraction
A
B
C
D
E
G
o-Xylene
H
K
Raffinate
Heavy reformate
>C9

Figure 2. Generalized flowsheet for production of benzene, o-xylene and p-xylene [1].

difference between the boiling points of o-xylene and m-xylene makes distillation practical (relative volatility is about 1.16) but very high reflux ratios and distillation columns with 100 or more plates must be used (unit G). The m-xylene and p-xylene are taken as overhead products and the o-xylene is recovered in the bottom stream along with the heavier aromatics. O-xylene is separated from the other components (as the overhead product) in a second distillation column (unit H).

The relative volatility between m-xylene and p-xylene is too small for distillation to be practical. Crystallization has been the most common method for separating p-xylene from m-xylene commercially (unit I). In recent years other methods like molecular-sieve adsorption have been developed.

To maximize the yield of p- or o-xylene the residual mixed xylenes leaving the crystallizer (mother liquor) are recycled through a catalytic isomerization reactor (unit J). Here the concentrations of various xylene isomers is reequilibrated (Fig. 1). Toluene and lighter materials formed in this process are separated by distillation (unit K) from the mixed xylenes which are returned to unit G for separation. With this recycle loop the m-xylene isomer is converted to p-xylene and o-xylene. In most cases ethylbenzene is not recovered. If it is to be recovered an ethylbenzene removal column must be used before the o-xylene separator (unit G). If only mixed xylenes is manufactured as the final product unit G is used to separate C_9 and heavier aromatics from mixed xylenes. Units H, I, J, K are not used.

Conclusions

Xylene is a mixture of aromatic hydrocarbons of the general formula C_8H_{10} and is composed of the three isomers, o-xylene, m-xylene, p-xylene, and ethylbenzene. The term xylene is used to denote mixed xylenes and any isomer is referred to by its full name. Xylene isomers and mixed xylenes are not interchangeable as raw materials. Mixed xylenes is the source for o-xylene, m-xylene and p-xylene. Xylene isomers are obtained by separation of mixed xylenes into its individual isomers. The separation process requires use of process equipment like distillation columns, and crystallizers. The higher price of p-xylene and o-xylene with respect to the price of mixed xylenes reflects the cost of this separation.

The use of the term xylene to denote not only mixed xylenes but also each one of the isomers o-xylene, m-xylene and p-xylene would be contradictory to the technical classification and established industrial practice.

References

[1] Kirk, R.E., D.F. Othmer, M. Grayson and D. Eckroth (Eds), Kirk-Othmer Encyclopedia of Chemical Technology, Vol. 24, 3rd Edition, John Wiley and Sons (1984).

[2] Anderson, J.D., Chem. Eng. Progress, p. 39 (Dec. 1980).

[3] King, C.J., Separation Processes, 2nd Edition, McGraw-Hill (1980).

Mr. GIBBONS. Thank you, sir.

I want to ask you something about xylene because I notice on page 21 of the booklet that staff has prepared for us, they have xylene derived from coal and xylene mixed into gasoline. What is the logic or lack of logic of all of that? Actually, the last time we taxed, we taxed xylene at $4.87 per ton.

Mr. HARTLAGE. Yes.

Mr. GIBBONS. And now they have got xylene derived from coal at $13.11 a ton and they have got xylene mixed into gasoline at $2.88 a ton. I don't——

Mr. HARTLAGE. I can't help you out on that. I don't know the logic of that either. It doesn't sound very good to me either.

Mr. GIBBONS. Well, you know, I want to say——

Mr. CONABLE. It is kind of mysterious, isn't it?

Mr. GIBBONS. I want to say to all of you that we are under sort of a gun. We are going to have to do some movement and we are going to try to move intelligently and we need your help. I would like to have a broader-based tax, something that didn't put us in such a competitive disadvantage vis-a-vis our competitive neighbors around the world. I don't know how to do it, though.

You know, maybe we could levy a sales tax on products made from all of this. Is that possible? How far down the line can you clearly raise these items? We are levying an excise tax on the product at the origin. What I was thinking about is a sales tax a little further down the line. Is that—I don't know that much about your business is the problem.

Mr. BELZER. That would be possible, but I think it would take a little thought and time.

Mr. KENNEDY. Mr. Chairman, you are approaching a kind of a value-added tax which, of course, our European competitors have, but that is a subject that is, I think, much broader than the one we are dealing with today.

Mr. EDDY. In the case of petroleum products, the mechanism is there, and it could easily be applied. The collection point could easily be at the exit to the refinery where excise taxes are normally collected on petroleum products, Mr. Chairman.

Mr. GIBBONS. That has not escaped my imagination, but I don't know—we obviously can't keep all of this $8 billion over a 5-year period on just a narrow base here. It worries me.

Mr. EDDY. Another suggestion that has been discussed and I think you will be hearing more about later is the possibility of some type of a corporate receipts tax which would broaden the base significantly and I think we would be more than happy to discuss that further with the committee.

Mr. GIBBONS. Are there other questions?

Mr. CONABLE. Mr. Chairman, do you all prefer a dry weight waste end tax?

[Chorus of "yeses."]

Mr. CONABLE. Is that a big deal? You can all figure out what toxic waste is, anyway, whether it is wet or dry, can't you?

Mr. BELZER. Absolutely.

Mr. KENNEDY. For anyone in the industry, it is a routine thing.

Mr. CONABLE. Seems foolish to have a wet weight, you know. You are just taxing water, but you are not with the wet weight one.

You figure out what the dry weight is in the wet stuff and tax that; right?

Mr. **Kennedy**. That is correct.

Mr. **Conable**. So it is not really a terribly relevant concern. A waste end tax is likely to be, in effect, a dry weight tax any way you slice it, and you have the capacity. There is really no problem with administerability as long as you have the capacity to figure out what it is.

Mr. **Belzer**. If you put it on wet weight, it will depend on the solution. That is why we call for a dry weight basis.

Mr. **Conable**. Thank you.

Mr. **Duncan**. Mr. Chairman.

Mr. **Gibbons**. Mr. Duncan, go ahead.

Mr. **Duncan**. What would be the difference between use of a dry weight formula and wet weight formula for the waste? Can any of you answer that—the difference between the use of the dry weight and the wet weight formula? How much for the tax?

Mr. **Kennedy**. We can get you that information, Mr. Duncan. I don't have it.

Mr. **Conable**. Depends how much water there was in the wet.

Mr. **Kennedy**. In gross revenues, I don't know.

Mr. **Duncan**. Do all of you agree with Mr. Overton that the anticipated impact of a tax increase of this size on the petrochemical industry would do harm to our export markets?

Mr. Kennedy.

Mr. **Kennedy**. Absolutely, sir; the ability of our industry to be competitive is challenged today. The industry's loss in exports and the loss, therefore, in trade balances in the last 3 years does not reflect the new Middle Eastern petrochemical plants because they are just not onstream yet. They start up in Saudi Arabia the end of this year. But, as they come onstream, the effect of the tax on our dwindling exports in petrochemicals is going to be exacerbated; there is no question about it. It will dry up markets that had previously been ours in Europe, Latin America, and the Far East.

Mr. **Duncan**. Is there any disagreement?

Mr. **Belzer**. There is no question but that it will have a significant effect.

Mr. **Duncan**. Do you see a possibility of the demise of the petrochemical sector in some companies?

Mr. **Kennedy**. It is happening now. Mr. Holmer, the CMA witness, spoke of shutdown and writeoff of facilities. In December last year we shut down and wrote off 300 million dollars' worth of petrochemical facilities in the gulf coast of the United States. That was equivalent to about a thousand jobs in the end of 1983.

They are plants that will not come back up again.

Mr. **Duncan**. You could see further shutdown of facilities?

Mr. **Kennedy**. Yes. The specter raised by Mr. Thomas' testimony is that we are not just looking at $9 billion. I think we are looking—as EPA goes down the learning curve on how to clean up sites, there is no question but what more sites will be started in time, everything works that way with experience, as they get better at it.

The levels of funding will have to go up to finish off the program, so maybe we are talking, if not $13 billion in the next 5 years, some increasing level in the 5 years from 1990 to 1995. If that burden of that is put on the backs of this same small group of companies, I don't think we are going to have much of a petrochemical industry left in the United States by 1995.

Mr. DUNCAN. Would any of you care to comment on the testimony Mr. Florio or anyone else gave today? I think some of you were here when he testified this morning.

Mr. KENNEDY. I would only add that the comment made by Mr. Florio and others with respect to a negative 17 percent tax rate on the petrochemical companies in the year 1982 is a half a story. When the whole industry was underwater and losing money in 1982, there weren't many taxes to be paid.

I think you will read and have read earnings reports of the petrochemical industry in the first two quarters of 1984 reporting a—in the case of Celanese, Dow, ourselves, and Union Carbide—a 100-percent increase in profitability. That brings us up to an average return on capital employed somewhere between 5 and 9 percent.

Of course, it is an enormous improvement in profitability when you start from nothing. But 5 and 9 percent, when we were paying 11 or 12 percent for capital, still does not put this industry in a position where it is able to pay its bills. We are not paying our creditors. We are not earning enough to pay our creditors.

Mr. OVERTON. Also, an important point is that you simply can't look at the company's financial health as a whole and say we can afford to pay the tax. A company doesn't manage its businesses that way. It manages businesses on a product line basis. Unless that product line can carry its weight, the company won't continue it. That is what you have to do. You have to get down to a specific product line basis to see the impact of this tax.

Mr. DUNCAN. Thank you, gentlemen.

Thank you, Mr. Chairman.

Mr. GIBBONS. Mr. Gephardt.

Mr. GEPHARDT. I would like to have each of you comment on a question I asked before, and that is whether you feel a tax on your industries is too much. Do you feel a different composition of taxes would be a better approach at whatever level we finally go for? Do you think that we should go to a broader based tax? Do you think there is a good argument for that? If so, I would like to hear about it.

Mr. EDDY. The current tax, from the standpoint of the independent refining sector, is manageable. The proposed tax, though, we can't calculate, as I indicated, because we don't understand fully yet how to deal with the BTX as imposed in the new legislation. But we are looking at a minimum of probably a ten-fold increase and potentially for some refiners a significantly greater than ten-fold increase in our annual tax.

We regard this as just grossly inequitable. We think the way this new structure is set out in the bill, the petroleum refining industry will be forced to absorb much more than the 15 percent allocation that was structured in the original legislation. So we believe that this will be extremely difficult to live with financially. And, as I stated in my testimony, particularly under market conditions where we can't pass it through, we would very much like to see a broader tax structure of some type put in place.

Mr. HARTLAGE. We feel like the Superfund tax is a manageable level tax, as long as it is applied fairly and across the board.

I might point out that we do not have a substantial amount of our product that goes outside the country, so we are not particularly impacted by the import-export differences in the taxation. We are a mid-size company that lives by our wits and hope that we can compete where the taxes are levied fairly. And, from our viewpoint, when it is put on the feedstocks, it does in general pass through fairly evenly to us and our competitors. So it is not a prohibitive tax for us.

Mr. OVERTON. Again, in my mind, it is not so much specific rates. I think what is happening is you see a trend lately in tax policy where you are trying to solve societal needs with selective and punitive excise taxes on specific items. Now, the result of that is going to be that you are going to put the producers eventually out of business. You can eliminate pollution by just taxing them out of business.

The question is, do you want to do that? If it is a societal problem, I think you want to have a broader based tax so the society in general totally bears the tax.

Mr. KENNEDY. If you look at who our market is and who our customers are, Mr. Gephardt, as basic industrial chemical producers our customers are the steel industry, the paper industry, the specialty and fine chemicals people, the automotive industry, electronics industry, IBM, and the whole of Silicon Valley. They are the ones taking our chemicals and using them in the processing of their end products, and in so doing they create their own waste and they dump their own waste.

A waste end tax seems like a simplifying kind of assumption, but there are just an enormous amount of people out there, industrial people, who are having to get rid of stuff, and some of it they recycle, as we do, and some they can't recycle. I see no alternative other than a broader based tax.

Having said that, we have considered all other possibilities—you have heard some here—and we are not sure where equity lies. I think the expertise for that is within your jurisdiction. But would we be willing to work with the committee and your staff? You bet we would.

Mr. BELZER. There is no question but that the current tax is inherently unfair. As I said earlier—you had to step away, I believe, but others have said it—12 companies are paying 70 percent of the tax. My company isn't one of them. Nonetheless, the tax is unfair. We do need to get more people who are involved in the problem paying part of the cleanup.

I have proposed here that since everyday trash contributes dramatically to the problem—whether you are talking about rust removers or paint remover or batteries or nail polish remover—every day, people are throwing trash out, and that is part of the problem, and that is not—they are not contributing at all.

I suggest we put a $3 a ton tipping fee in on everyday trash. That will raise over $300 million for the Federal Government for Superfund, as well as about $180 million for the States who would collect the money.

But I say, as to your question about whether the current tax is unfair, it very much is very unfair and it will distinctly hurt the petrochemical industry if it is escalated.

Mr. **Gephardt**. Thank you, Mr. Chairman.

Mr. **Gibbons**. It is very interesting, gentlemen.

Let me ask you, instead of taxing the lead, for instance, we can tax lead as it appears in batteries, or something of that sort. I know we have some battery people who are coming on later——

Mr. **Conable**. That would be a lot of emphasis on cadmium batteries.

Mr. **Gibbons**. We may want to tax cadmium batteries, too.

Is cadmium a polluting type of metal?

Mr. **Overton**. Yes, sir.

Mr. **Kennedy**. Yes, sir.

Mr. **Gibbons**. I thought it was. I am exploring around trying to find ways. If we put the tax on batteries, that would catch the batteries wherever they came from.

Mr. **Hartlage**. I think part of the—anything that your committee faces is when you talk to people in the chemical business, you are talking to people who supply raw materials for just so many different facets of our modern life that when you try to simplify and get it to an outlet that may be taxable and uniform throughout the uses of chemicals, it just becomes an impossible job, because I don't think—if you look at your own life and those around you, no one buys chemicals just for the sake of they like chemicals. They are bought because they need them to make something else or use it to do something else. So, they are so pervasive in our way of life today that it is very difficult to get down to the end point.

You have a difficult deliberation.

Mr. **Gibbons**. Well, obviously when you tax a few items, you tax them real high, and you just have a few people to deal with and the tax is easy to collect. That doesn't mean it is a just tax to collect. It obviously has side-effects that go way out into the economy, into the stream of the American economy.

I look at some of these things like they are going to jump acetylene from $4.87 to $29 a ton. Now, I don't know what that does to the acetylene industry. I know what acetylene is used for—mainly for welding, isn't it?

Mr. **Overton**. It is a basic building block, yes.

Mr. **Gibbons**. Union Carbide, don't you all make that?

Mr. **Kennedy**. We make it as a byproduct, Mr. Chairman. And there is a whole industry, though, of whom one of our most notable customers is the GAF Co., who make fine acetylene derivitives. They make a lot of fine chemicals that go into pharmaceuticals, cosmetics, and a whole bunch of other products.

Mr. **Overton**. That is the other problem. Inherent in an excise tax is, to the extent you have products which can be substituted and you don't tax both products, your tax policy tends to favor one product over another.

Back to steel and aluminum: If you tax the aluminum, people start substituting steel to a point where the price becomes attractive. So your tax policy per se on excise taxes is generally not favorable, as it does cause that effect.

Mr. **Gibbons**. It looks like they—the staff shows that the percent of change on acetylene is 513 percent. As just a politician and not as a businessman, I don't know what that does to the competitive products of acetylene or whether there are competitive products—I imagine there are—or what that does to the rest of the market. That is a whale of an increase.

Mr. **Kennedy**. Right.

Mr. **Gibbons**. OK. Well, we will try to puzzle it out. Anything you all can do to help us, we would appreciate.

Mr. **Belzer**. Thank you.

Mr. **Kennedy**. Thank you, Mr. Chairman.

Mr. **Gibbons**. Crown Central Petroleum Corp.; National Petroleum Refiners Association; Atlantic Richfield Co.; and Standard Oil Co. of Ohio.

Mr. Mampe.

STATEMENT OF EDWIN P. MAMPE, JR., PH.D., DIRECTOR, GOVERNMENT AFFAIRS, CROWN CENTRAL PETROLEUM CORP.

Mr. **Mampe**. Thank you.

I am director of Government affairs for Crown Central Petroleum, an independent refiner. We are headquartered in Baltimore, MD.

Mr. **Gibbons**. You have the bad mike there. Would you pull up another one?

Mr. **Mampe**. As I was starting to say, we are an independent refiner headquartered in Baltimore with a single refinery near Houston, TX. We market under the Crown brand in the Virginia and Maryland suburbs. And I gather by the hours you gentlemen keep you probably shop a lot at our gas stations. We are open all night long.

We appreciate the opportunity to testify here regarding the Superfund tax. I would like to take issue with two of the characterizations that have been made today regarding the independent refining sector. I think it is inappropriate to lump them in with the broad chemical industry.

I was going over our bulletin board yesterday and we had a number of press releases on the board from the last 3 months. The first one is dated April 26, and that was a press release announcing a $4,127,000 loss. Our net worth is about $180 million. The next one was dated June 28, and that announced that we had suspended the dividends on our two classes of common stock. The third one was actually a letter from our chairman dated June 29 imposing a freeze on the hiring of all new employees, a freeze on the employment of temporary employees, a request to reduce capital expenditures to absolutely practical minimums, and to authorize expenditures for maintenance only to the extent maintenance is absolutely necessary.

The next one is dated July 3——

Mr. **Conable**. Must be assuring to you to find out how profitable you are when you get over here.

Mr. **Mampe**. Yes.

The fourth one announces we have hired Alex Brown, an investment banker in Baltimore, to consider the sale of our insurance subsidiary. I think our board will tomorrow announce another loss for the second quarter. So things are very tough.

Mr. **Conable.** You must be losing a lot of money on insurance.

Mr. **Mampe.** Actually, sir, that is one of the profitable elements of the company, which is, I guess, why we are resigned to selling it, keeping the refining and marketing. Sadly, we don't have too much crude oil production, which has remained very profitable.

But, in that context, we think the bill, H.R. 5640, has the potential to put us out of business, given the differential tax rates on different gasoline components. Let me mention a few.

There are various methods of making motor gasoline. One method, which a few in the industry are using, involves blending methanol into gasoline. Methanol is generally produced in this country from natural gas, rather than crude oil. The methanol would not be taxed under the crude tax or under the tax on aromatics. So the folks blending methanol would have a competitive advantage over those who make gasoline in a normal manner.

We estimate that the incidence of the tax on aromatics would vary depending on whether or not the gasoline made was leaded gasoline, or unleaded gasoline, or premium unleaded gasoline. We estimate the highest rate of tax would be on premium unleaded gasoline. That would be about 18 cents a barrel; only 12 cents on unleaded; and the lowest tax would be on leaded gasoline.

We think that this—of course, the importer of gasoline would not pay any tax on the aromatic component, which we would be required to pay a tax on of $2.88 a ton. Under the bill, H.R. 5640, we would be taxed on the inputs to our alkylation units. We take isobutane and butylene and make alkyld, which is a very high-octane component of unleaded gasoline. The end product is not a taxable item, so the importers who bring in gasoline which contains alkylate, which is known as iso-octane, would not even be detected in terms of having used, what for us, was a taxable substance.

We think there would be great difficulty in passing through our higher costs in the marketplace, given that we compete with foreign imports, which just hit a record in April of around 12 million barrels per month, and would have very great difficulty in recovering those quantities of taxes in the marketplace.

I might add that in the last 3 years, 88 refineries in this country have shut down. I believe 72 of those have closed permanently, and I think it is totally inappropriate to consider all members of this industry as being in a healthy financial situation because clearly that is not the case.

The other point I think that I would like to make is that the leaky tank problem is one which is addressed by the industry, in our view, in a very responsible manner. We had a serious tank leak about 8 years ago on Long Island, NY. We heard very close to Christmastime that a man was smelling fumes in his basement. It turned out the basement didn't have any concrete floor; it was a dirt floor. The ground was frozen. We checked the station we had across the street and we determined—it had been pressure tested 2 months before the event, and the tanks had been sound—but, lo and behold, we checked and the tank was a leaker.

We started drilling observation wells all around the station and determined there was gasoline in the ground water. We went further and drilled a total of, I think, 49 observation wells. We then brought in pumps and, working with the county environmental officials and with the Health Department, started pumping out water from the aquifer where we thought the gas was. We recovered about 50 gallons of gasoline.

We paved, repaved, the man's basement, indemnified him for all the difficulty, and we actually were commended by the State of New York.

I think the industry generally is very much concerned with lawsuits and has done a commendable job in locating and fixing up the leaks, because it doesn't want to be sued. If it doesn't—the number of orphan tanks, in our view, where a responsible party cannot be located, is minuscule, we think. And we don't think the Superfund is really necessary, except in trivial numbers of cases, to clean up abandoned tanks.

It is very, very late, and I would just like to conclude by saying we would hope that the concept of a tax which would not benefit certain refiners—and the gross receipts tax is clearly one of those—would be considered by the committee. We would hope that the importers would have to pay the same tax that any domestic refiners would have to pay.

I would just add that the OPEC exporting countries are now in the process of constructing refineries. The OPEC cartel quota limitations do not apply to products which may be exported to this country; they only apply to crude oil. So, one way an OPEC country desirous of selling more crude oil than is allowed under the cartel is simply to put in an extra refinery and send the products in here and dump them at whatever cost, because the costs of crude oil are very, very low. We are very concerned about that.

If the Superfund taxes domestic refiners, but not importers of those products, we are in dire straits.

Thank you very much.

[The prepared statement follows:]

STATEMENT OF EDWIN P. MAMPE, JR., PH.D., DIRECTOR, GOVERNMENT AFFAIRS, CROWN CENTRAL PETROLEUM CORP.

Good morning. Crown Central appreciates the oportunity to testify on H.R. 5640, the Superfund Expansion and Protection Act of 1984.

1. Crown Central supports the Sueprfund concept, as a vehicle for cleaning up "orphaned" hazardous waste dumps where a financially responsible party cannot be located to pay for a site's cleanup. However, we believe the Committee should continue to support the existing concept that the burden of funding cleanups should be borne by the various industries in proportion to their contribution to the problem.

2. We do not think the nation's independent refiners are, or have been, a significant contributor to the hazardous waste problem.

3. Independent refiners are currently experiencing great financial difficulty. They will have difficulty in paying even their "fair share" of any new Superfund tax if the tax vehicle used precludes a full passthrough in the marketplace. The independent refining industry cannot be looked to as a "deep pocket" source for funding waste problems which have been caused by profitable industries.

4. One important method of making lead-free gasoline is the catalytic reforming of virgin naptha into aromatics: benzene, toluene and xylene. Some of these may be solvent extracted, fractionated out and sold to the petrochemical industry, where they may be further processed into chemicals which can pose a persistent hazard if improperly disposed.

Crown believes that such materials should be taxed when they are sold in a form which may become an environmental hazard. But, aromatics do not pose an evironmental hazard when they remain in gasoline. There, by combustion, they are transformed into harmless carbon dioxide and water. Aromatics should be taxed only when they are extracted and sold as petrochemical feedstock, not when they are burned as fuel.

5. Our company acts conscientiously to constantly test and replace any leaky tanks, and to clean up our leaks, working in conjunction with state and local environmental officials and fire marshalls. In the vast majority of cases of petroleum tank leaks, the owner of the tanks historically has paid for the solution to the problem. Only in rare instances does an orphan (abandoned) tank exist for which a "deep pocket" cannot be found to clean it up. Any extension of Superfund to cover these few cases should utilize scientific principals of risk assessment, not mere rhetoric, as the basis for creating federal funding levels.

6. The current language of H.R. 5640 would levy a $2.88 tax per ton on benzene, xylene, and toluene contained in domestically produced motor gasoline, but not on imported gasoline, which has recently approached 10% of domestic consumption. Any Superfund tax should apply with at least equal effect to imports. Crown Central estimates that $2.88 per ton tax on aromatics in gasoline would add 3/10 cent to the cost of our unleaded regular gasoline, on top of the crude tax. But, under H.R. 5640, this would not apply to imported gasoline. This inequity has the potential to put domestic independent refiners out of business.

7. Economic theory suggests that prices in highly competitive markets like the current gasoline market are set by the last or "incremental" supplies to the market. The incremental barrels in the case of unleaded gasoline are unleaded imports and may also include, given fuel switching, substitutable domestic and imported leaded gasoline, plus methanol/gasoline blends.

The current competitive market would allow little or none of the higher tax on unleaded gasoline to be passed through, given that substitute leaded gasoline and alcohol/gasoline blends will be taxed at lesser or zero rates. Because leaded regular gasoline contains less octane-rich aromatics, it would only bear about half the tax applicable to unleaded gasoline. Methanol would not be taxed at all. Thus, the price of unleaded gasoline probably would not increase to reflect the tax. Independent refiners who tend to make disproportionate quantities of unleaded gasoline will not be able to recover much of the tax. Their losses will increase. They will make less unleaded gasoline, or join the eighty-eight other refineries in the last three years that have shut down and gone out of the refining business.

8. The issue of Superfund tax vitally affects environmentally conscious refiners such as Crown. We would hope that the committee would not take precipitous action on this matter until it has been fully studied and equitable funding levels determined. As the current statute does not expire until September 30, 1985, there is no need to take action this year, especially given the financial posture of independent refiners.

Mr. GIBBONS. Mr. Sternfels.

STATEMENT OF URVAN R. STERNFELS, PRESIDENT, NATIONAL PETROLEUM REFINERS ASSOCIATION

Mr. STERNFELS. Thank you, Mr. Chairman.

I am Urvan Sternfels, president of the National Petroleum Refiners Association, and I am appearing here today before the committee—I should say, this evening—to urge a substantial realignment of the Superfund revenue burden as currently proposed in the legislation before us.

The NPRA is a national trade association representing both refiners and petrochemical manufacturers in the United States, and almost everyone in that business in this country is a member of our organization. We principally represent the manufacturing segment of the industry as opposed to other activities involved in the business.

The pending House legislation would be very damaging to our members, particularly the independent refiners. We must bring to your attention today those aspects of H.R. 5640 that pose the greatest threat, and deserve full consideration by the House Ways and Means Committee in its review of the Florio bill.

I appreciate your perseverance in hearing the witnesses here tonight. It certainly indicates a concern of our membership.

We believe the Superfund reauthorization should be deferred until 1985, the year in which the current law expires. There is no reason to rush forward with this obviously controversial bill, the impacts of which are not fully appreciated, as was evidenced today in previous testimony.

EPA has to date shown no evidence of ability to spend at the proposed, greatly increased revenue rates. In this time of extremely weak financial condition for the petrochemical and petroleum refining industry, Superfund revenues should not be collected and held in escrow while industry's recovery of these additional taxes is highly unlikely. Only those funds EPA can reasonably be expected to spend should be collected, and that sum simply has not been determined on any deliberate or studied basis. Perhaps I should reverse that thought and say only the money that EPA can spend reasonably should be collected.

If Congress concludes that reauthorization is necessary this session, it should act to simply extend the current law. We support reauthorization of Superfund, but it should not become one of the final nails in the coffin of many independent refiners. We believe that any change of Superfund should be done on the basis of more experience, judgment, and need.

The taxes for cleanup of hazardous wastesites should properly be assessed on those responsible for waste disposal problems. In fairness, any future burden on the refining segment should not be greater than its measured contribution to the problem.

For most refiners, the extreme competitive pressures in today's market have already precluded recovery of current tax burdens—such as the recently increased gasoline tax. More important, longer range prospects for the independents are bleak in view of increased gasoline exports by foreign refiners, some of whom are controlled by foreign governments, that do not share the same tax and manufacturing costs—and, in some cases, raw material cost burdens—as domestic refiners.

The independent refiners can ill afford a new tax in the present situation where little or no opportunity for passthrough to the end user is possible. In view of this situation, basic fairness demands that the burden should be equitably based upon those who have responsibility for the waste problems that need to be cleaned up. We do not believe that is the case under present law, and we don't believe it is the case in much greater form in the proposed legislation.

The tax conferees just last month agreed that benzene, toluene and xylenes—BTX—in gasoline were not intended to be taxed. Whether or not the new BTX tax in H.R. 5640 is predicated on a linkage with leaking underground storage tanks, a BTX tax is uneven in impact, as a practical matter, unmeasurable as to occurrence, and almost impossible for IRS to audit. It fails under all traditional tests of a well-conceived tax scheme. In any event, I would urge the committee to reaffirm the recent intent of Congress that no light hydrocarbons used in the manufacture of motor fuel should be subject to the Superfund tax.

The leaking underground storage tanks—LUST—provisions in the bill are not related to cleanup of abandoned hazardous waste disposal sites. LUST is directed at storage tanks for petroleum products that are used as fuel and for other purposes, and therefore are generally not wastes. LUST provisions are not appropriately part of Superfund and should be dealt with separately. Since most of these storage tanks are not in the hands of refiners, imposition of taxes on gasoline manufacture to fund the problem raises serious questions of equity which need to be further explored.

The Superfund tax should be carefully crafted to eliminate any advantage to imported petroleum products. If a tax on BTX mixed into gasoline is imposed under Superfund, imported finished gasoline and gasoline blending stocks would not be subject to the same level of tax as that manufactured domestically. Failure to impose at least a comparable tax burden on imported gasoline would in effect serve to export U.S. refining capacity from the United States and ultimately threaten the national security.

Any reauthorization of Superfund should be linked to a demonstrated need and reflect a studied approach to fairly placing the burdens of revenue on those most closely associated with the hazardous waste disposal site problems which now require cleanup. We would request that the committee consider the fact that the refining industry is not, itself, a major contributor to the waste disposal problem.A772A EXT .146 EDITED BY "EDSTD" ON 20-NOV-81 Williams 97520 Name Date Jacket 39-772 File a772a.146 Folio 920-23

Thank you.

I would request that we have an opportunity to amplify our remarks in the written record at a later date.

[The prepared statement follows:]

STATEMENT OF URVAN R. STERNFELS, PRESIDENT, NATIONAL PETROLEUM REFINERS ASSOCIATION

The National Petroleum Refiners Association urges the House Ways and Means Committee to make a substantial realignment of the Superfund revenue burdens as currently proposed in H.R. 5640, the Superfund Expansion and Protection Act of 1984.

NPRA is a national trade association whose membership consists of virtually every petroleum refiner and petrochemical manufacturer in the United States. The pending House legislation would be very damaging to all of our members, but most particularly to the independent refiners. We must bring to your attention today those aspects of H.R. 5640 that pose the greatest threat, and deserve your full consideration.

Superfund should not be reauthorized this year.—NPRA strongly believes that Superfund reauthorization should be deferred until 1985, the year in which the current law expires. Section 301 of the Comprehensive Environmental Response Compensation and Liability Act calls for several important Superfund evaluation studies to be done by the end of this year, and EPA has promised them within the next few months. These studies are necessary for rational, responsible consideration of Superfund reauthorization. There is no reason to rush forward on this important issue with an obviously controversial bill, the impacts of which are not fully appreciated. EPA has to date shown no evidence of ability to spend at the proposed, greatly increased revenue rates. In this time of extremely weak financial condition for the petrochemical and petroleum refining industry, Superfund revenues should not be collected and held in escrow while industry's recovery of these additional taxes is highly unlikely. Only those funds EPA can reasonably be expected to *spend* should be collected. Put another way, only those funds that can be spent reasonably by EPA should be collected.

If Superfund is reauthorized this year, is should be done at current levels of funding.—If Congress concludes that reauthorization is necessary this session, it should act to simply extend the current law. We support reauthorization of Superfund, but it should not become one of the final nails in the coffin of many independent refiners. We believe that any change of Superfund should be done on the basis of more experience, judgment and need.

If Superfund is reauthorized at levels greater than the current law, revenue generation should be based on contribution to the waste problem.—The taxes for cleanup of hazardous waste sites should properly be assessed on those responsible for waste disposal problems. In EPA's recently released 1983 survey of hazardous waste generators, the petroleum refining and marketing segment is measured as having generated only 3 percent of current annual waste. In fairness any future burden on the refining segment should not be greater than its measured contribution to this situation.

For most refiners, the extreme competitive pressures in today's market have already precluded recovery of current tax burdens (such as the recently increased gasoline tax). More important, longer range prospects for the independents are bleak in view of increased gasoline exports by foreign refiners, some of whom are controlled by foreign governments, that do not share the same tax and manufacturing costs (and in some cases, raw material cost burdens) as domestic refiners. The independent refiners can ill afford a new tax in the present situation where little or no opportunity for passthrough to the end-user is possible. In view of this situation, basic fairness demands that the burden should be equitable based upon those who have responsibility for the waste problems that need to be cleaned up.

Eliminate any BTX tax on gasoline.—The new tax on benzene, toluene and xylenes in H.R. 5640 is predicated on a linkage with leaking underground storage tanks. A BTX tax on gasoline would impose massive measuring, monitoring and recordkeeping costs on refiners. Refiners have never determined with any degree of specificity how much of the taxable organic chemicals they make and use in producing motor gasoline. The amounts vary from day to day, from one blending stream to another. What they calculate is octane value, which depends on a number of variables, such as the type and quality of the crude oil being refined. Aromatics (such as the otherwise taxable chemicals benzene, toluene, and xylene) are made and used in varying amounts during refining operations, but no record is ever kept as to how much. In the refining process, it is not necessary because gasoline product specifications do not require an inventory of hydrocarbon types. The proposed tax, however, would add a significant and costly recordkeeping burden on refiners. Whole new measuring and monitoring equipment and procedures would have to be employed. The motor gasoline components that would be taxed would have to be measured precisely, and records kept for both reporting and possible audit situations. As a practical matter, BTX is unmeasurable as to occurrence; a BTX tax is uneven in impact and almost impossible for IRS to audit. The BTX tax fails under all traditional tests of a well-conceived tax scheme. The tax conferees just last month agreed that benzene, toluene and xylenes (BTX) in gasoline were not intended to be taxed. We urge the Committee to reaffirm the recently expressed intent of Congress that no light hydrocarbons used in the manufacture of motor fuel should be subject to the Superfund tax.

Remove provisions for clean-up of leaking underground storage tanks (LUST) from the Superfund reauthorization.—The Leaking Underground Storage Tanks (LUST) provisions in the bill are not related to cleanup of abandoned hazardous waste disposal sites. LUST is directed at storage tanks for petroleum products that are used as fuel and for other purposes, and therefore are generally not "waste." LUST provisions are not appropriately part of Superfund and should be dealt with separately. Since most of these storage tanks are not in the hands of refiners, imposition of taxes on gasoline manufacture to fund cleanup raises serious questions of equity which need to be further explored.

The Superfund tax should be carefully crafted to eliminate any advantage to imported petroleum products.—If a tax on BTX "mixed into gasoline"—an imprecise term used in the bill—is imposed under Superfund, imported finished gasoline and gasoline blending stocks would not be subject to the same level of tax as those manufactured domestically. Unfortunately, when these stocks are landed at a U.S. port of entry, some of the taxable components "mixed into" gasoline no longer can be identified. Equity would demand the same application of tax to imported gasoline. Failure to impose at least a comparable tax burden on imported gasoline would, in effect, serve to export U.S. refining capacity and ultimately threaten the national security.

SUMMARY

Any reauthorization of Superfund should be linked to a demonstrated need and reflect a studied approach to fairly placing the burdens of revenue on those most closely associated with the hazardous waste disposal site problems which now require cleanup. We would request that the Committee consider the fact that the refining industry is not, itself, a major contributor to the waste disposal problem. Little or no environmental waste problems occur as a result of the BTX used in gasoline; these chemicals are transformed in the combustion process into harmless carbon dioxide and water. If enacted, H.R. 5640 would increase refiners' burdens under Superfund almost 16 fold, a monumental and unjustified departure from even the existing law.

Mr. GIBBONS. Yes, you will.

Mr. Schmidt.

STATEMENT OF JOHN P. SCHMIDT, SENIOR VICE PRESIDENT, ARCO CHEMICAL CO., ON BEHALF OF ATLANTIC RICHFIELD CO.

Mr. SCHMIDT. I am John Schmidt, senior vice president of ARCO Chemical Co., a division of Atlantic Richfield. I am here to testify on the Superfund taxation, specifically the increased tax on chemical feedstocks as proposed in H.R. 5640. This legislation will increase the tax on petrochemical feedstocks to levels which are nearly 5 percent of the current selling prices of these chemicals. Several people have said that the tax is 3 percent maximum. That is not correct. Ethylene, the largest petrochemical, would be taxed at 4½ percent. More importantly, this is higher than the profit margins in this industry.

People have testified today about very high profits. Those profits are less than the tax rates now being proposed. Beyond that, if one considers the segment of the industry involved, the feedstock segment, many of us are losing money on the basic petrochemicals right now.

Atlantic Richfield supports reauthorization of the Superfund and supports expansion of the fund if additional moneys are required. However, given that higher levels of funding are required, a tax on one industry, while arguably tolerable at certain rates, will cause severe economic damage when those rates are increased. Therefore, we believe that Congress must move to a broader based tax mechanism.

The petrochemical feedstock tax, which would be increased threefold to sixfold by this legislation, is a tax on exports and a subsidy to imports. Several people today have conjectured whether that tax would or would not affect the trade balance. Maybe we can contribute some new information.

To judge the impact of this tax, Atlantic Richfield retained a consultant, the Management Analysis Center, under the leadership of William Nordhaus, a professor of economics at Yale and a former member of the Council of Economic Advisers. They have just completed their assessment of the impact of these taxes.

Based on their economic model studies of international trade, the report concludes that increases in the feedstock tax as proposed will seriously undermine the petrochemical industry's ability to compete in both foreign and domestic markets. It also concludes that the optimal financial mechanism with minimal dislocation is a broad-based corporate receipts tax coupled with a tax on waste disposal.

Let me highlight some of the points in this report. Imports of the petrochemicals studied will increase by 400 percent with these tax rates.

Exports will fall by 4 to 18 percent.

Lost revenue due to reduced exports and higher imports will be more than double the tax collected. Thus, on a national basis, the tax is self-defeating.

Net U.S. trade revenues for just two of the chemicals studied will decrease by $190 million annually. Effects on all chemicals will be far greater.

Gentlemen, it is these types of dislocations, coming at a time when the industry is slowly recovering from the last recession, that will inhibit its ability to compete effectively against feedstock-rich countries. Given the fact that the proposed tax exceeds the entire historic profit margin in this industry, we are not surprised by the findings of the consultant. This legislation will result in shutdown of American plants and loss of many jobs.

In an attempt to deal with these issues, Congressman Tauzin has proposed a 5-percent tax on the imports of feedstocks and their derivatives. While Atlantic Richfield supports the intent of this proposal, this amendment will only modestly reduce the adverse impact of the legislation. The problem is that the amendment has its principal effect on imports whereas U.S. exports of chemical feedstocks and derivatives are three times as large as imports. Of those exports, 97 percent of the products would still bear the penalty of a Superfund tax.

We recommend to you today that Congress adopt for the present fund or an expanded fund a dedicated receipts tax on all corporations filing a U.S. income tax form 1120, having in excess of $50 million in sales. In addition, we recommend a direct incentive for proper hazardous waste management by imposing a tax on hazardous waste currently subject to RCRA.

Taken together, the corporate receipts tax and the waste-end tax fully meet the five criteria Congress established for a workable tax.

First, revenues are virtually guaranteed.

Second, administration is simple.

Third, economic dislocation is minimal. The tax would be on the order of only 0.02 percent. This would not threaten the competitive position of any business.

Fourth, equity is maintained since foreign and domestic companies would pay the tax equally, eliminating the advantage now given to imports of untaxed derivatives.

Fifth, a disincentive for land disposal is created through a waste-end tax. The petrochemical industry lost close to $400 million in 1982. It is only now returning to profitability. Positive chemical trade balances have declined from $15 billion in 1980 to $10 billion in 1983. We urge this committee to consider that this industry is a vital national asset. It must compete in a global economy and it will be severely weakened by this legislation.

The abandoned hazardous waste site problem belongs to our entire society. Everyone has benefited, directly or indirectly, from past practices. For this reason, we must move to a broader funding base for the Superfund.

Thank you.

[The prepared statement follows:]

STATEMENT OF JOHN SCHMIDT, SENIOR VICE PRESIDENT, ARCO CHEMICAL CO., ON BEHALF OF ATLANTIC RICHFIELD CO.

My name is John Schmidt. I am Senior Vice President of ARCO Chemical Company, a division of Atlanta Richfield Company.

I am here to testify on superfund taxation, specifically the increased tax on chemical feedstocks as proposed in H.R. 5640.

This legislation will increase the tax on petrochemical feedstocks to levels which are 5-6% of the current selling prices of these chemicals. This is higher than the historic profit margin in this industry.

We are here to support the valid need to clean up abandoned hazardous waste sites. Now, to avoid any misunderstanding, let me state Atlantic Richfield's position:

We support reauthorization of superfund.

We back expansion of the fund if it can be shown that the funds can be spent in a responsible manner.

However, given that higher levels of funding are required, a tax on one industry, while arguably tolerable at current rates, will cause severe economic damage when those rates are increased substantially. This is one of the few industries that produces a postitive trade balance for the United States.

Therefore, we believe that Congress must replace the current superfund tax with a broader-based tax.

The petrochemical feedstock tax, which would be increased three- to six-fold by this legislation, is, among other things, a tax on our exports and a subsidy to imports.

To judge the impact of this tax, Atlantic Richfield retained the consulting firm Management Analysis Center, under the leadership of William Nordhaus, professor of economics at Yale University and a former member of the Council of Economic Advisers.

Their mission was to conduct a thorough assessment of the impact of increased feedstock taxes on the domestic petrochemical industry and to evaluate superfund financing alternatives. They have just completed this work.

Based on economic model studies of international trade, the Nordhaus-MAC report concludes that increases in the feedstock tax as proposed in H.R. 5640 will seriously undermine the U.S. petrochemical industry's ability to compete in both domestic and foreign markets. It further concludes that the optimal financing mechanism to meet superfund policy objectives with minimal economic dislocation is a broad-based corporate receipts tax, coupled with a tax on hazardous waste disposal. A copy of this report has been submitted with our testimony. It represents months of research and we believe it is the type of dispassionate analysis that this issue requires.

Let me highlight some of the points contained in this report.

Imports of the petrochemicals studied will increase by 400 percent due to H.R. 5640's tax rates.

Exports will fall by 4-18% under H.R. 5640's tax rates.

Lost industry sales, due in large measure to reduced exports and higher imports, will be as much as double the tax collected under H.R. 5640. Thus, on a national basis, the tax is self-defeating.

Loss of industry sales, for just two of the chemicals studied, will be an estimated $190 million annually. Combined effects on all chemicals will be far greater.

It is these types of dislocations, coming at a time when the industry is slowly recovering from the last recession, that will inhibit its ability to compete effectively against the newly emerging threat from feedstock-rich countries. Given the fact that the proposed tax exceeds the entire historic profit margin in the industry, we are not surprised by the findings of the consultant. This legislation will result in shutdowns of American plants, the loss of many jobs, and the exportation of the manufacture of these chemicals—and their derivatives—by other countries.

In an attempt to deal with these foreign trade issues, the Energy and Commerce Committee endorsed Congressman Billy Tauzin's recommendation to impose a 5% tax on imports of taxed feedstocks and their immediate derivatives. There is also a provision for credits for exports of taxable feedstocks.

While Atlantic Richfield supports the intent of this proposal, and appreciates Congressman Tauzin's efforts to address the trade issue, this amendment will only modestly reduce the adverse impact of H.R. 5640.

One problem is that the Tauzin amendment has its principal effect on imports, whereas U.S. exports represent 75% of our international petrochemical trade.

Of these exports, 97 percent of the products would still bear the penalty of the superfund tax. Thus, even with this amendment, our industry will suffer a major setback in its ability to compete in world markets with foreign producers who pay no tax.

Further, the Tauzin amendment does not eliminate the price disparites that H.R. 5640 creates between taxed substances here and abroad and such untaxed substitutes as glass, metal and paper. These substances contributed to the hazardous waste problem in their own right.

Finally, the Tauzin amendment, by limiting its reach to "immediate" derivatives does not eliminate the incentive H.R. 5640 would create for foreign production and importation of higher order derivatives, such as trashbags and plastic cups.

FUNDING

We recommend to you today Congress adopt for the present fund, or for an expanded fund, a dedicated receipts tax on all corporations filing a U.S. corporate income tax form (1120) having in excess of $50 million in receipts annually. In addition, we recommend that Congress provide a direct economic incentive for proper hazardous waste management by imposing a tax on hazardous wastes currently subject to the Resource Conservation and Recovery Act (RCRA).

Taken together, the corporate receipts tax and the waste-end tax fully meet the five criteria Congress established for a workable superfund tax:

Revenues are virtually guaranteed.—The 8,200 businesses that would pay a gross receipts tax reported receipts of $3.7 trillion in 1980, a revenue base that is not likely to decline.

Administration is simple.-Receipts are already reported on the corporate income tax form.

Economic dislocation is minimal.—A tax of $2 per $10,000 in gross receipts would raise $750 million annually. This minuscule rate of two-one-hundredths of 1 percent would not threaten the competitive position of any business. An exclusion of the first $50 million in gross receipts would protect small business.

Equity is maintained.—A broadening of the tax would increase equity: "contributors" to the hazardous waste problem go far beyond the narrow industry segment now paying superfund taxes. In addition, foreign companies doing business in the U.S. and domestic companies would pay the tax equally, eliminating the advantage now given to importers of untaxed chemical derivatives.

A disincentive for land disposal is created through a waste-end tax that makes land disposal more expensive than alternatives.

For your information, we have attached to our written testimony legislative language embodying our funding position.

To reiterate, we urge you to avoid imposing a severe tax burden on an industry that is just now recovering from a series of losses.

The petrochemical industry lost close to $400 million in 1982. It continued to operate at a loss in 1983, and is only now returning to profitability. Plants have been shut down. Chemical employment has dropped by 50,000 in the last two years.

Positive chemical trade balances have declined from $15 billion in 1980 to $10.6 billion in 1983. They will decline further this year.

We urge this committee to consider that this industry is a vital national asset, that it must compete in a global economy, and that it will be severely weakened by this legislation. In conclusion, we are unable to support a funding mechanism that will damage an industry that provides jobs and trade dollars to this country. We are unable to support a funding mechanism that places extraordinary burdens on a narrow segment of a single industry. The abandoned hazardous waste site problem belongs to the entire society. Everyone has obtained benefits, directly or indirectly, from the lower costs of past disposal practices. For these reasons, we must move to a broader funding base for the superfund.

ATLANTIC RICHFIELD CO., RECOMMENDED LEGISLATIVE LANGUAGE ON A GROSS RECEIPTS TAX AND A WASTE-END TAX TO FINANCE THE HAZARDOUS SUBSTANCES SUPERFUND

TITLE III—AMENDMENTS RELATING TO IMPOSITION OF EXCISE TAX ON CERTAIN RECEIPTS BY CORPORATIONS

SEC. 1. Amendment of 1954 Code—Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1954.

SEC. 2. Repeal of taxes on petroleum and certain chemicals and imposition of tax on certain receipts by corporations.

(a) Chapter 38 (relating to environmental taxes) is amended by redesignating Subchapter C (relating to a tax on hazardous wastes) as Subchapter D, and inserting the following new Subchapter C.

SUBCHAPTER C—EXCISE TAX ON CERTAIN RECEIPTS BY CORPORATIONS

SEC. 4671 IMPOSITION OF TAX

(a) General Rule. There is hereby imposed an excise tax of .008% on all taxable gross receipts by every corporation during the taxable year.

(b) Special Rule for Affiliated Groups. Under regulations prescribed by the Secretary, the members of an affiliated group shall compute their taxable gross receipts on a consolidated basis, regardless of whether the affiliated groups files a consolidated federal income tax return pursuant to section 1504 et seq. of this title for the taxable year.

(c) The tax imposed by this section shall not apply to receipts by corporations which are exempt from federal income tax under section 501(a) of this title.

(d) The taxes collected by the Treasury under this section shall be appropriated to the "Hazardous Substance Response Fund" pursuant to section 9631(b)(1)(A) of Title 42 of the United States Code.

(e) The tax imposed by this section shall terminate on September 30, 1992.

SEC. 4672 DEFINITIONS

For purposes of this subchapter—

(1) Taxable gross receipts. The term "taxable gross receipts" means all gross receipts, without any deductions, in excess of $50,000,000, from all trade or business operations. For this purpose, "gross receipts" does not include receipts which constitute:

(a) dividends, including all amounts which are treated as dividends received under subtitle A of this title;

(b) interest;

(c) rents;

(d) royalties;

(e) receipts from sale, exchange or involuntary conversion of a capital asset;

(f) receipts from sale, exchange or involuntary conversion of property used in the trade or business;

(g) amounts included in income under section 951 of this title;

(h) amounts which are not treated as gross income under section 61 of this title;

(i) refunds of taxes deducted in prior years;

(j) amounts received from members of the taxpayer's affiliated group;

(k) amounts which are treated as income from sources without the United States under section 862(a) of section 863 of this title and the regulations promulgated thereunder.

(2) Capital asset. The term "capital asset" has the same meaning as that defined in section 1221 of this title.

(3) Property used in the trade or business. The term "property used in the trade or business" has the same meaning as that defined in section 1231(b) of this title.

(4) Taxable year. The term "taxable year" means a corporation's taxable year under section 441(b) of this title.

(5) Affiliated group. The term "affiliated group" has the same meaning as that defined in section 1504(a) of this title.

TITLE IV—CONFORMING AMENDMENT RELATING TO HAZARDOUS SUBSTANCE RESPONSE FUND

SEC. 401. AMENDMENT OF AMOUNTS APPROPRIATED TO THE HAZARDOUS SUBSTANCE RESPONSE FUND.—Section 9631(b)(1)(A) of title 42 is restated to read "On amounts received in the Treasury under Section 4611, 4661 or 4671 of Title 26."

WASTE TAX BILL

"Chapter 38 of the Internal Revenue Code of 1954 is amended by inserting after Subchapter D the following new subchapter:

Subchapter E—Tax on Disposal and Long-Term Storage of Hazardous Wastes

Section 4691. Imposition of Tax

Section 4692. Definitions
Section 4693. Administration and Enforcement

SECTION 4691 IMPOSITION OF TAX

(a) General Rule.—There is hereby imposed a tax on the disposal offsite or the disposal onsite of hazardous waste which is listed or identified under Section 3001 of the Solid Waste Disposal Act, as amended. For the purposes of imposition of the tax under this Section, long-term storage of hazardous waste listed or identified under Section 3001 of the Solid Waste Disposal Act, as defined herein, shall be treated as disposal.

(b) Amount of Tax.—The amount of tax imposed by subsection (a) shall be:

(1) $20 per ton (total wet weight basis) on Acutely Hazardous Wastes, as defined.

(2) $10 per ton (total wet weight basis) on Regular Hazardous Wastes, as defined.

(3) $1.00 per ton (total wet weight basis) on Aqueous Hazardous Waste, as defined.

(c) Exclusions and Limitations.—

(1) No tax shall be imposed under subsection (a) on the disposal onsite or disposal offsite of any solid waste the regulation of which as of January 1, 1984, is suspended under Section 3001 of the Solid Waste Disposal Act, as amended. In the event that the Administrator determines, pursuant to Sections 8002 and 3001 of the Solid Waste Disposal Act, as amended, to promulgate regulations under Subtitle C of said Act for such wastes, then the administrator shall transmit to both Houses of Congress such determination. No tax shall be imposed on such waste unless authorized by Act of Congress.

(2) In the case of any hazardous waste listed or identified under Section 3001 of the Solid Waste Disposal Act, as amended, which is removed from such listing or identification, the tax imposed under subsection (a) shall cease to apply on the effective date of such removal. In the case of long-term storage of any such removed waste, no period of storage after the effective date of such removal shall be taken into account for purposes of the tax imposed under subsection (a).

(3) Except as provided in subsection (c)(1), in the case of any hazardous waste which becomes listed or identified under Section 3001 of the Solid Waste Disposal Act, as amended, after the effective date of this Act, the tax imposed under subsection (a) shall take effect on the effective date of such listing or identification. In the case of long-term storage of any such listed or identified waste, no period of storage before the effective date of such listing or identification shall be taken into account for purposes of the tax imposed under subsection (a).

(4) No tax shall be imposed upon the redisposal of any hazardous waste which is generated as the result of any removal or remedial action conducted pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended.

(5) No tax shall be imposed upon the disposal offsite or the disposal onsite of any hazardous waste at a certified hazardous waste management facility.

(d) Liability for Tax.—The tax imposed pursuant to subsection (a) shall be imposed:

(1) In case of disposal at a qualified hazardous waste disposal facility, or long-term storage at a qualified hazardous waste storage facility, upon the owner or operator of such facility, and

(2) In the case of disposal other than at such a facility, upon the person disposing of or storing long-term the hazardous waste.

(e) No Double Taxation.—The tax imposed under subsection (a) shall not be imposed again on any hazardous waste, or portion thereof, which is removed subsequent to payment of the tax imposed under subsection (a) to another place for disposal or storage.

(f) Fractional Part.—

(1) In the case of a fraction of a ton, the tax imposed under subsection (a) shall be the same fraction of the amount of such tax imposed on a whole ton.

(2) The taxes imposed under subsection (a) shall not apply to any amount of waste disposed or placed in long-term storage prior to the effective date of this Act.

(g) Effective Date and Termination.—The tax imposed under subsection (a) shall become effective on October 1, 1985 and shall not apply after September 30, 1990, except that if on any September 30 prior to such date:

(1) The unobligated balance in the Hazardous Substance Response Trust Fund as of such date exceeds $1,000,000,000, and

(2) The Secretary, after consultation with the Administrator, determines that such unobligated balance will exceed $500,000,000 on September 30 of the following year if not tax is imposed under this Act during the calendar year following, then no tax

shall be imposed by this section during the first calendar year beginning after such September 30.

SECTION 4692 DEFINTIONS

(a) For purposes of this Subchapter:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) ACUTELY HAZARDOUS WASTES.—The term "acutely hazardous wastes" includes all hazardous wastes listed in 40 CFR 261.33(e)

(3) AQUEOUS HAZARDOUS WASTES.—The term "aqueous hazardous wastes" means aqueous waste mixtures which are classified as hazardous wastes under regulations promulgated pursusnt to the Solid Waste Disposal Act, as amended, based solely upon the characteristic of ignitability, corrosivity, or reactivity (as defined by regulations promulgated pursuant to Section 3001 of the Solid Waste Disposal Act, as amended) and which are disposed of under one of the following statutory authorities:

(A) Part C of the Safe Drinking Water Act relating to Federal underground injection control programs, or state underground injection control programs submitted for federal approval,

(B) Section 3005 of the Solid Waste Disposal Act, as amended. The term does not include aqueous waste mixtures which are classified as hazardous based upon toxicity (as defined by regulations promulgated pursuant to Section 3001 of the Solid Waste Disposal Act as amended), nor such mixtures which are generated as a result of combining water with listed hazardous wastes from specific and non-specific sources or with discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

(4) CERTIFIED HAZARDOUS WASTE MANAGEMENT FACILITY.—The term "certified hazardous waste management facility" means a hazardous waste management facility or designated specific operation of a qualified hazardous waste disposal facility which has been certified under regulations promulgated by the Administrator as employing state-of-the-art hazardous waste management technology which relies upon land-based waste disposal only to a necessary and incidental degree.

(5) DISPOSAL.—The term "dispose" or "disposal" shall have the same meaning as under Section 1004(3) of the Solid Waste Disposal Act as amended. "Dispose" or "disposal" shall not include the use, reuse, reclamation, treatment or recycling of hazardous wastes or the storage of hazardous waste (except for "long-term" storage in a "qualified hazardous waste storage facility", as defined below). "Dispose" or "disposal" does not include "disposal" of any amount of hazardous waste by incineration in accordance with standards applicable to incineration facilities permitted under Subtitle C of the Solid Waste Disposal Act, as amended. The term includes long-term storage as defined herein.

(6) DISPOSAL OFFSITE.—The term "disposal offsite" means to dispose of hazardous waste at a location or facility which is not onsite.

(7) DISPOSAL ONSITE.—The term "disposal onsite" means to dispose of hazardous waste at the same facility at which such waste is generated or at another facility under direct control and ownership of the generator of such wastes.

(8) HAZARDOUS WASTE.—The term "hazardous waste" means any waste:

(A) identified or listed under Section 3001 of the Solid Waste Disposal Act, as amended, other than waste the regulation of which has been suspended by Act of Congress, or

(B) subject to the reporting or recordkeeping requirements of Sections 3002 and 3004 of such Act.

The term includes "acutely hazardous wastes", "aqueous hazardous wastes" and "regular hazardous wastes" as defined in this Subchapter for purposes of this Subchapter.

(9) LONG-TERM STORAGE.—The term "long-term" means the placement of hazardous waste in a qualified hazardous waste storage facility for one year or more.

(10) QUALIFIED HAZARDOUS WASTE DISPOSAL FACILITY.—The term "qualified hazardous waste disposal facility" means any disposal facility which has received a permit under Section 103 of the Marine Protection, Research and Sanctuaries Act; under Part C of the Safe Drinking Water Act relating to Federal underground injection control programs, or state underground injection control programs submitted for federal approval; or any disposal facility which has received a permit or is accorded interim status under Section 3005 of the Solid Waste Disposal Act, as amended.

(11) QUALIFIED HAZARDOUS WASTE STORAGE FACILITY.—The term "qualified hazardous waste storage facility" means any storage facility, waste pile or surface im-

poundment, which has received a permit or is accorded interim status under Section 3005 of the Solid Waste Disposal Act, as amended.

(12) **Receipt.**—The term "receipt" means the act of the owner or operator of an offsite qualified hazardous waste disposal or storage facility by which he signs or otherwise executes the manifest or shipping paper accompanying the hazardous waste.

(13) **Recycle.**—The term "recycle" shall have the same meaning as defined by the Administrator pursuant to the Solid Waste Disposal Act, as amended.

(14) **Regular hazardous wastes.**—The term "regular hazardous waste" includes all hazardous wastes listed in 40 CFR 261.31, 261.32 and 40 CFR 261.33(f). The term also includes all hazardous wastes meeting the characteristics specified in 40 CFR 261.21, 261.22, 261.23 and 261.24. The term does not include "aqueous hazardous wastes" or "acutely hazardous wastes" as defined herein.

(15) **Secretary.**—The term "Secretary" means the Secretary of the Department of the Treasury.

(16) **Submission for disposal offsite.**—The term "submission for disposal offsite" means action or actions taken to relinquish custody of a quantity of hazardous waste by the generator of such hazardous waste and to designate such hazardous waste for delivery to an offsite long-term storage or disposal facility such that the hazardous waste manifest and related reporting and recordkeeping requirements promulgated pursuant to Subtitle C of the Solid Waste Disposal Act, as amended, apply to such action or actions.

(17) **Surface impoundment and waste pile.**—The terms "surface impoundment" and "waste pile" are as defined by regulations promulgated by the Administrator pursuant to Subtitle C of the Solid Waste Disposal Act, as amended.

(18) **Ton.**—The term "ton" means 2,000 pounds.

(19) **Treatment.**—The term "treatment", shall have the same meaning as under Section 100(34) of the Solid Waste Disposal Act, as amended.

SECTION 4693 ADMINISTRATION AND ENFORCEMENT

(a) **Regulations.**—

(1)(A) The Administrator, in consultation with the Secretary, shall promulgate such regulations as are necessary to ensure the compilation, recordkeeping, reporting and submission of information concerning hazardous waste which is subject to the tax imposed under Section 4691 of this Subchapter. In particular, the Administrator shall promulgate regulations for the recordkeeping and reporting of information on onsite disposal, long-term storage and submission for disposal offsite of hazardous waste within 120 days of the effective date of this Act. Such regulations shall address appropriate modifications to existing hazardous waste manifest requirements, accounting procedures for determining amounts of hazardous wastes placed in a qualified hazardous waste storage facility which are deemed to be in long-term storage, wastes disposed of in a facility certified under Section 4691(c)(5), and requirements for recording and the regular submission of information concerning onsite disposal of hazardous wastes. To the maximum extent practicable, any regulations promulgated pursuant to this Section shall be consistent with regulations existing or adopted under the authority of the Solid Waste Disposal Act for the management of hazardous waste activities generally.

(B) Any person who knowingly fails or refuses to submit any document or information required to be submitted under regulations promulgated pursuant to subparagraph (a)(1)(A); who otherwise knowingly fails or refuses to comply with any requirement in effect under this Section, shall, upon conviction, be subject to a fine of not more than $50,000, or to imprisonment for not more than two years, or both. Nothing in this subsection shall be deemed to limit or exclude any other penalty under any other law, regulation or authority.

(2) The Secretary, in consultation with the Administrator, shall promulgate regulations as may be necessary regarding the collection of taxes imposed under Section 4691, including regulations regarding recordkeeping and submission of information, statements and returns necessary to determine the identity of taxpayers, identity of certified facilities under Section 4691(c)(5), the amount required to be paid, and the payment of taxes imposed under Section 4691. To the maximum extent practicable, such regulations shall ensure that records, statements and returns required to be kept, rendered and made under this subsection shall be consistent with recordkeeping and reporting requirements imposed by the Administrator under the authority of the Solid Waste Disposal Act.

(3) In discharging their respective duties under this Section, the Secretary and the Administrator may require any person who generates, transports, disposes of, treats, or stores hazardous wastes and who is required to maintain records under the au-

thority of the Solid Waste Disposal Act, the Marine Protection, Research and Sanctuaries Act, the Safe Drinking Water Act or the Clean Water Act, to submit copies of such reports or make such reports available as required.

(b) INSPECTION OF RECORDS: ACCESS.—The Administrator may utilize the authorities of Section 3007 of the Solid Waste Disposal Act, as amended, and Section 104(j) of the Comprehensive Response, Compensation and Liability Act of 1980, as amended, for purposes of carrying out the requirements of this Section.

(c) COLLECTION AND PAYMENT.—

(1) The amounts described in Section 4691(b) shall be collected from the person submitting hazardous waste for offsite disposal or long-term storage by the owner or operator of the offsite facility. Notwithstanding the foregoing, the amount of tax charged to the person submitting the wastes shall be reduced to the extent that if no tax is required to be imposed pursuant to Section 4691(c)(5). Regulations promulgated by the Secretary shall govern the procedures for effecting the determination of the amount of the tax to be charged in circumstances involving a certified hazardous waste management facility.

(2) Except as provided in Subsection 4691(e)(2), the tax imposed under Section 4691 with respect to disposal onsite or submission for disposal offsite of hazardous waste, shall be paid within 30 days of the end of each calendar quarter during which such hazardous wastes were disposed onsite or submitted for disposal offsite.

(3) In the case of a tax imposed with respect to the long-term storage of hazardous wastes, the tax shall be paid within 30 days of the end of each calendar quarter during any portion of which such storage occurs, commencing with the first calendar quarter ending one year after the date on which such wastes were initially placed in such storage. Regulations promulgated by the Secretary and the Administrator pursuant to Section 4691(a) shall govern procedures for determining time of tax payment for wastes continuously placed into or removed from a long-term storage facility.

Mr. GIBBONS. Mr. Blower.

STATEMENT OF KENNETH E. BLOWER, MANAGER, CORPORATE ENVIRONMENTAL AFFAIRS, STANDARD OIL CO. OF OHIO

Mr. BLOWER. My name is Kenneth Blower. I am manager of corporate environmental affairs for the Standard Oil Co. of Ohio, which is also known as Sohio. Sohio is an integrated natural resources company with interests in oil, chemicals, industrial products, and mining. Our corporate headquarters are in Cleveland,and we have industrial facilities located throughout the lower 48 States and Alaska.

On behalf of Sohio, I appreciate this opportunity to discuss with you our views on the Comprehensive Environmental Response, Compensation, and Liability Act reauthorization legislation which is currently under consideration.

I will focus my remarks on one provision of H.R. 5640, the use of a tax on hazardous waste disposal to generate funds commonly referred to as a waste end tax. My comments address our general concerns regarding the use of such a waste end tax and I will highlight what the impact could be on my company.

Sohio is opposed to a waste end tax for the following reasons: First, it will place an inequitable and unfair burden on U.S. domestic companies that trade in international markets. The waste end tax will become part of an overall cost basis for these companies that manufacture in the United States and dispose of hazardous wastes as a result of that activity.

I would add that such a tax should be paid even though the waste disposal techniques are environmentally sound and within regulatory requirements. Foreign manufacturers competing in the same international market would not pay the waste end tax and would therefore have a lower cost base. U.S. sales and exports would be placed at an economic disadvantage in world markets due to the imposition of a waste end tax on disposal of wastes.

Second, we believe that imposition of a waste end tax will result in substantial administrative burdens, will be costly to collect and may well be an unreliable source of revenue to support CERCLA activities. It will apply to thousands of wastes, large and small companies alike, and will require substantial documentation to effectively administer. We expect increased effort directed to delisting of identified hazardous wastes to avoid payment of the tax.

States that have implemented a waste end tax have experienced a substantial revenue shortfall that has ranged from 18 to 93 percent for individual States. Administration of a waste end tax will be complex and an unreliable source of funds.

I will turn now to the specific impact of a waste end tax on Sohio. We produce acrylonitrile, a significant export item for U.S. producers. The imposition of a waste end tax on class 1 deep-well disposal conducted by acrylonitrile operations would have a very severe economic impact. If properly sited and managed, deep-well disposal operation is an environmentally sound disposal technology. There are no deep-well injection sites on the NPL.

The tax rate proposed by the bill discourages the use of deep-wells compared to other land disposal techniques. A waste end tax imposed upon these dilute wastes would have a profound impact upon our operations and in many cases there are no viable disposal alternatives.

Additionally, there is the potential that a waste end tax could in the future be imposed on high-volume, low-toxicity wastes from mining, that is, the mining waste tailings, and waste from petroleum operations, that is, the muds, cuttings, and produced waters. These wastes are currently being studied under RCRA and are not now identified as hazardous under the statute. These high-volume, low-toxicity wastes are handled in an environmentally sound manner and will continue to be so managed in the future.

The imposition of a waste end tax under CERCLA brings us one step closer to taxing such wastes. Because of the volume of materials, this could be an overwhelming tax burden on these industries.

In conclusion, Sohio believes that first the authorization of CERCLA should occur next year when Congress has more time to address the important issues involved in this legislation and EPA has completed its studies mandated under the 1980 law.

Second, CERCLA authorization should focus on the original goal of cleaning up abandoned waste sites. Funding needs as identified in H.R. 5640 could be substantially reduced by focusing only on the original purpose of the legislation. A waste end tax should not be utilized to generate CERCLA funds. CERCLA should rely upon the current feedstock tax, supplemented if necessary by general revenue or future borrowing capability.

I have addressed only one narrow issue regarding H.R. 5640. There are a number of other critical provisions in the broadly scoped bill that deserve critical examination.

This concludes my oral statement.

[The prepared statement follows:]

STATEMENT OF KENNETH E. BLOWER, MANAGER, CORPORATE ENVIRONMENTAL AFFAIRS, STANDARD OIL CO. OF OHIO

My name is Kenneth E. Blower and I am Manager of Corporate Environmental Affairs for The Standard Oil Company (Ohio), which is also known as Sohio. Sohio is an integrated natural resources company with interests in oil, chemicals, industrial products, and mining. Our corporate headquarters are in Cleveland, and we have industrial facilities located throughout the lower 48 states and Alaska.

On behalf of Sohio, I appreciate this opportunity to discuss with you our views on the Comprehensive Environmental Response, Compensation, and Liability Act reauthorization legislation which is currently under consideration.

Sohio has a long-standing commitment to preserving and enhancing environmental quality. The cleanup of hazardous waste disposal sites is no exception to this responsibility. Because cleanup of abandoned hazardous waste sites which pose a threat to human health or the environment has not yet been completed, it is obvious that reauthorization of CERCLA will be a necessity. Sohio supports reauthorization of CERCLA during 1985 and accomplishment of its cleanup goal, but has serious concerns over some of the funding and scoping provisions which are included in H.R. 5640.

In order to make this bill more economically efficient and environmentally effective, Sohio recommends the following:

1. Reauthorize in 1985, following completion and consideration of the CERCLA Section 301(a) study;

2. Reduce funding level to a more realistic amount; funding levels should be commensurate with funding needs.

3. Do not use a waste-end tax;

4. Continue the current feedstock tax with an expanded borrowing capacity;

5. Do not include study or regulation of underground storage tanks under CERCLA;

6. Retain complete exclusion of cleanup of petroleum substances from CERCLA;

7. Mandate site-specific CERCLA cleanup standards, based upon local groundwater uses and upon risk factors such as waste toxicity and mobility and area hydrogeology.

8. Concentrate cleanup efforts on "hazardous substances," rather than including "pollutants and contaminants;" and

9. Rely upon existing toxic tort and worker compensation systems rather than instituting a new federal cause of action or liability provisions.

Inclusion of these changes in H.R. 5640 will make it a more workable and effective bill.

TIMING OF REAUTHORIZATION

The original 1980 CERCLA legislation contained, under Section 301(a), a requirement that EPA complete a study of CERCLA effectiveness and needs by the end of 1984. This study would analyze response effectiveness, past expenditures, future funding needs, experience with cost recoveries, state participation, impact of taxes, equity of taxation methods, and the need to tax additional substances. Because there are so many variables and unknowns associated with implementation of CERCLA (e.g., number of sites, cost per site, cost recoverability, level of contamination, extent of cleanup required), Sohio recommends that CERCLA be reauthorized during the 1985 legislative session, after this 301(a) study has been completed. This would give EPA, Congress, and the states a maximum amount of time to learn about the workability, technical requirements, and problems of CERCLA implementation, thereby improving the efficiency and effectiveness of the cleanup program. This would also provide time to thoroughly study funding options. EPA Administrator William Ruckelshaus and the Office of Management and Budget are on record as supporting CERCLA reauthorization in 1985.

FOCUS OF CERCLA

While Sohio supports reauthorization of CERCLA, we feel strongly that the funds and resources authorized for this program should be carefully and efficiently utilized in an environmentally sound and cost-effective manner. We also feel that funding of CERCLA should be in the amount required to clean up sites, and should not be used to fund other programs, such as regulation of underground storage tanks. We feel that several provisions of H.R. 5640 would operate to divert funds and resources away from site cleanups. I would like to describe the changes to H.R. 5640 which Sohio feels would make it a more economically efficient and effective bill.

FUNDING LEVELS

In order to determine which funding mechanism is most appropriate for the purposes of CERCLA, it is necessary to first determine the amount of money which must be raised. Current EPA estimates, according to the "Son of Superfund" report released earlier this year by EPA's Superfund Task Force, predict that 1000 to 2200 sites will require cleanup under Superfund. At an EPA-estimated average of $7.7 million per site, this will require a fund totaling $7.7 billion to $17 billion. This estimate assumes that all 56 percent of the sites which EPA estimates have groundwater contamination will require an engineering solution to groundwater cleanup. This represents a worst-case situation, since it is likely that many of the sites which have groundwater contamination will only require plume containment, rather than remedial action. Although EPA has stated that it will take approximately 14 years to clean up these sites, we have used a conservative estimate of ten years. Therefore, the amount which must be available on an annual basis for site cleanups must be between $770 million and $1.7 billion per year. Of this amount, approximately 42 percent is anticipated by EPA to be contributed by private party cleanups. Thirty percent of the remainder is estimated to be recoverable from responsible parties. Additional funds totalling approximately $320 million/year would be required for administration, research and development and removal actions. Additionally, H.R. 5640 proposes to contribute approximately $230 million per year from general revenues. This means that $400 million to $770 million per year must come from Superfund. Since the current feedstock tax is designed to raise approximately $320 million per year, the existing tax structure already provides 80 percent of the necessary funding for the base case of 1000 sites. However, if additional sites are placed on the National Priority List, raising the total to 2200 sites that require cleanup, an annual funding increase of approximately $450 million may be needed in addition to the amount raised by the current taxing program.

Based on this conservative cost analysis, the maximum amount which needs to be raised annually from taxes in order to fund site cleanups is $770 million. This is obviously far less than the $2.05 billion which H.R. 5640 is designed to raise annually from feedstock and waste-end taxes.

SOURCE OF FUNDS

In order to pay for cleanup of the many abandoned hazardous waste sites which have been and will be identified on EPA's National Priority List (NPL), it is necessary to have a reliable source of funding for the CERCLA program. The selected funding mechanism should be as equitable as possible, require minimal collection effort, provide a reliable and consistent source of funds, avoid economic inequities which would favor imports over domestic products or put American exports at a disadvantage in world markets, and avoid disruption of the Resource Conservation and Recovery Act (RCRA) hazardous waste management program.

Funding for activities not directly related to site cleanups should not be included. In order to avoid unjust taxation of companies for funds which are not truly needed, every effort should be made to estimate the amounts which are legally recoverable from disposers and other responsible parties, and those costs should be subtracted from the total required funding level to provide a more accurate picture of the actual tax funding levels required. In addition, it is important to remember that many industries are already spending large sums of money to clean up their own sites, without utilizing any CERCLA funds. This further reduces the level of funds which must be raised by taxes.

Sohio believes that the optimum funding method to accomplish these goals is extension of the existing feedstock tax at its current rates and level. An expanded borrowing authority could be utilized in years in which actual cleanup costs exceed available CERCLA fund resources. Monies could be borrowed from general revenues, or from third parties, and repayment of amounts borrowed could be amortized over a fixed period, with payments originating both from recoveries and from feedstock taxes. In this way, a reliable source of funding could be continued and inequities in CERCLA tax burdens would be minimized. This method would avoid an unneccessary accumulation of funds which could exceed available administrative and technical resources and result in a rushed and less effective cleanup.

RELATIONSHIP TO RCRA

Sohio believes that the Comprehensive Environmental Response, Compensation, and Liability Act should provide for the cleanup of abandoned sites at which past waste management practices pose a threat to public health or the environment, and that the Resource Conservation and Recovery Act (RCRA) should be relied upon to regulate current and future waste management practices. Unfortunately, some believe that CERCLA should be utilized to influence current and future waste management practices and would impose a waste-end tax as a CERCLA funding mechanism to accomplish this task. However, a waste-end tax may encourage illicit waste management methods and would be extremely ineffective at providing funds for the cleanup of abandoned sites. The reasons for this ineffectiveness are outlined in the following paragraphs. Sohio believes that CERCLA cannot effectively provide for both the cleanup of abandoned sites and the influencing of future waste management practices, and that the former should remain its sole objective.

WASTE-END TAX

Sohio believes that a waste-end tax would be a highly undesirable funding mechanism for CERCLA. The major drawbacks of a waste-end tax as described in the following paragraphs include:

1. It would create unfair economic advantages favoring imported products over domestic products;
2. It would be administratively difficult and costly to collect and would require utilization of an administratively infeasible "degree of risk" approach.
3. It would negatively interfere with the RCRA program;
4. It would not provide a consistent and reliable source of funding;
5. It may encourage illicit waste disposal and intentional under-reporting of waste generation rates; and
6. It would have severe inequitable economic consequences on certain types of waste disposal (e.g. deepwell injection and mining wastes).

- Economic Inequities for Domestic Products

  Waste-end taxes, unlike feedstock taxes, could produce serious economic inequities between domestic products and foreign imports. The current feedstock tax is applied to both domestic and imported petroleum and chemicals, treating imports and domestic feedstocks equally. Although imported derivatives of feedstocks are not now taxed while domestic derivatives must absorb some or all of the taxes paid by feedstocks, it is possible to identify imported derivatives and place a tax on them which would be equitable with the cost of domestic derivatives. However, a waste-end tax could be applied only to domestic production, giving imported products a price advantage. This would occur because the tax would be imposed on waste disposal, and disposal of the wastes associated with imported goods would have occurred in the manufacturing country and would not be subject to the U.S. tax. Therefore, the cost of manufacturing any given product in the United States would be increased by the application of a waste-end tax to any waste disposal associated with the manufacturing process. The same product imported from another country would not have to bear that added production cost. As a result, importers would, in many cases, have a lower cost base than would domestic producers. Additionally, U.S. exports subject to a waste end tax would be placed at a disadvantage in world markets.

- Administrative Difficulties

  Collection of feedstock taxes entails minimal effort since a small number substances are taxed. Feedstock taxes can be collected along with other federal excise taxes, and no updating of the tax rules is required when changes in RCRA occur. A waste-end tax, on the other hand, would be difficult and costly to collect. Such a tax would have to be collected from a large number of taxpayers for an even larger number of substances. Additionally, the cost involved in collection of waste-end taxes has been found by various states to be quite high. According to a General Accounting Office report on state waste-end tax systems, several states have found that such a tax generates revenue in quantities much lower than predicted. In order to have a truly equitable and effective tax on waste disposal, it would be necessary to base such a tax on a "degree of risk" concept, in which the amounts, hazards, risks, and management methods associated with each individual waste at each site are considered in assessing a tax rate, thereby encouraging the best method of disposal for each type of waste. Differences in environmental protection afforded by different types of facilities would have to be considered. If such high-volume, low-risk wastes as petroleum drilling fluids and mining wastes (which are currently exempted from RCRA regulation but may be added in the future) are taxed at a flat rate rather than on a "risk-assessed" rate, an unfair economic burden would be placed upon the generator of that waste. Development and implementation of such an assessment method by EPA would be extremely difficult and time-consuming, potentially delaying cleanups for a considerable time period.

- **Effect on RCRA**

  The dependence of CERCLA on RCRA which would occur if a waste-end tax were utilized, would cause problems for both systems. The RCRA system would be inundated with delisting petitions, and any attempts by EPA to list new wastes under RCRA would encounter even greater opposition than they currently do. In fact, EPA's delisting program has already been inundated with far more delisting petitions than it can handle. EPA has so far received 560 petitions for delisting, of which 372 were determined to be appropriately submitted. Of this number, only fourteen petitions, less than four percent, have received final delisting action. The increase in petitions which would occur if a waste-end tax were implemented, giving generators additional incentive to remove waste from regulation, would further bottleneck this already overburdened system. Any illicit disposal by companies or individuals attempting to avoid payment of a waste-end tax would severely undermine the effectiveness of RCRA. The tax base of CERCLA would change any time a waste was listed, delisted, or deleted under RCRA, making reasonable projections of collectible revenues impossible. Additionally, the current federal regulatory system does not identify all potential taxpayers, taxable acts, or taxable substances, since many wastes and activities are excluded from RCRA regulation. Enactment and implementation of the RCRA regulations which would be required to provide such identification would take several years, slowing down the process of tax collection and possibly the process of cleaning up sites which contain disputed materials.

- **Unstable Tax Base**

  Because a waste-end tax, in effect, provides incentives to utilize alternate waste management techniques which are not taxed, erosion of the tax base could occur, resulting in highly unpredictable revenues. Revenue shortfalls in individual states have ranged from 18 to 93 percent. In contrast, the feedstock tax currently utilized by CERCLA has experienced revenue shortfalls of only 17 to 20 percent, and this reduction has been mainly because of reduced production during the recent recession.

- **Encouragement of Undesirable Waste Reduction Methods**

  Although some generators might be encouraged by a waste-end tax to reduce waste generation levels or to switch to other legal waste management alternatives, it is quite likely that some might resort to waste management alternatives not intended to be encouraged by CERCLA. These include illegal disposal ("midnight dumping"), abuse of recycling and other legitimate exemptions, discharge to sewers, and intentional under-reporting of waste volumes. An increased incidence of illicit disposal would likely appear among the small-quantity generators which are currently being brought into the RCRA system. In some cases, these companies could afford neither to pay the extremely high waste-end taxes which are currently being proposed in H.R. 5640 nor to switch to alternate legal waste management methods.

- Specific Concerns of Sohio Regarding a Waste-End Tax

  In addition to the numerous broad concerns which Sohio has with a waste-end tax, we also have some specific concerns with certain situations in which a waste-end tax could have severe detrimental impacts upon our business units. One such concern is with the imposition of a tax on deepwell disposal. We feel that this is a proven, environmentally sound waste disposal technology which should not be discouraged by taxation. Additionally, the potential for future imposition of a waste-end tax on high-volume, low-toxicity wastes which are currently excluded from RCRA, such as mining wastes and oil and gas production wastes, would result in payment of taxes by Sohio alone of many hundred million dollars. This, obviously, would present an untenable and unjustified financial burden.

RECOMMENDED FUNDING METHOD

Because of the many negative features associated with a waste-end tax, it should not be utilized as a funding mechanism for the important tasks of CERCLA. Instead, Sohio urges strongly that CERCLA funding rely upon the existing feedstock tax, supplemented, if needed, by contributions from general revenues or an expanded borrowing capacity. Borrowing could be from general revenues or from third parties and would be repaid by Superfund monies available in future years.

Several new substances have been proposed in H.R. 5640 for inclusion in the feedstock tax. In most cases, there is no significant correlation between these substances and those found at abandoned hazardous waste sites. For instance, there is no justification for taxing the benzene, toluene, and xylene components of gasoline. Therefore, we see no supportable reason for expanding the existing feedstock tax, and urge that benzene, toluene, and xylene not be taxed when they are components of gasoline. Furthermore, taxation of metals under CERCLA should be directed toward more toxic metallic compounds, which are used or sold as chemical feedstocks, rather than the less toxic base metals which are used for other purposes.

UNDERGROUND STORAGE TANKS

Sohio recognizes the seriousness of Congressional concerns regarding the subject of leaking underground storage tanks. However, CERCLA is an inappropriate vehicle for addressing this issue. The reasons for our concern in this regard are numerous.

CERCLA is poorly suited to addressing petroleum hydrocarbon leakage from storage tanks. CERCLA was created primarily to address the release of hazardous substances from abandoned hazardous waste sites. EPA's protocols have been developed to deal with multiple contaminants at a single site and scores of potentially responsible parties. A leaking neighborhood gasoline tank presents a radically different situation.

Under CERCLA, the average underground storage tank problem will be handled neither expeditiously nor efficiently. Application of the MITRE MODEL (EPA's method of prioritizing sites based on imminence and scope of hazard) will likely place most underground storage tank cases very low on the National Priority List (NPL) because they normally do not contain the hazardous substances found at most NPL sites. Therefore, mitigation of these situations will be postponed while high priority waste sites receive the available effort and monies.

The underground storage tank provisions proposed in H.R. 5640 do not address several critical components of the issue. While the scope and character of underground storage tanks is largely undefined at present, the information which is available indicates that a very substantial portion, and possibly a majority, of leaking or potentially leaking tanks may be those of less than 1,100 gallon capacity.

Additional information regarding the scope and character of this issue must be obtained before a logical and effective program for regulation of underground storage tanks and mitigation of any leaks can be developed. USEPA recognizes this severe deficiency in information and is currently initiating a study to determine the number, location, condition, and usage of underground storage tanks. Any regulation of underground tanks or mitigation scheme for leaking tanks should be based upon the results of this study, rather than by guessing at the extent and type of potential risks posed by tanks, especially in view of the vigorous programs conducted by major oil companies to repair and replace underground storage tanks.

In order to avoid any leakage from pipelines, as well as to avoid loss of valuable materials, companies which transport raw materials or products via pipelines employ thorough testing methods to assure that no leak goes undetected or unremedied. For this reason, inclusion of pipelines in the underground storage tank provision of H.R. 5640 is unnecessary.

Sohio recognizes the concerns raised by the underground storage tank issue and the sincere nature of Congress' desire to properly address these issues. It is of primary importance, however, to take a logical, well-informed, carefully planned course to determine the solution to this issue. The framework of CERCLA is inappropriate for this task.

PETROLEUM EXCLUSION

In order to assure that the focus of CERCLA is not diverted away from cleanup of abandoned hazardous waste sites, it is important that the existing exclusion of petroleum from the definition of "hazardous substance" be maintained. Inclusion of petroleum substances would expand CERCLA to include numerous situations which do not pose the threat to human health or the environment that abandoned hazardous waste sites do. Releases of petroleum substances generally occur at active facilities which have the knowledge and available resources to effectively and efficiently clean up any spills. Thus, Sohio feels that releases of petroleum substances should not be addressed in CERCLA, so that CERCLA can maintain its focus on cleanup of abandoned hazardous waste sites.

CLEANUP STANDARDS

In order to determine at what point a site should be considered "cleaned up," EPA should develop standards specifically for the purposes of CERCLA. Such standards should allow for site-specific considerations, such as local groundwater use and area hydrogeology. Application of standards which have been developed for other purposes would, in many cases, result in unrealistic and perhaps unachievable cleanup goals. Attempts to achieve unreasonable cleanup goals would divert money and resources from other sites without providing additional protection of human health and the environment. For instance, application of drinking water standards to cleanup of a normally unusable aquifer represents an unreasonable application of standards.

SUBSTANCES TO BE CLEANED UP

Sohio supports legislation for cleanup of hazardous substances only. This would include cleanup of all sites currently listed or anticipated to be listed on EPA's National Priority List (NPL) as candidates for cleanup. Expansion of CERCLA to include cleanup of "pollutants and contaminants" would only insure that large sums of money would be spent to address and possibly clean up releases of any size and substance, which may very well pose no danger or minimal danger to human health or the environment. Cleanup of "pollutants and contaminants" would divert cleanup efforts and funds away from cleanup of higher risk sites which contain hazardous substances. This expansion in terms is unnecessary and in fact would decrease the speed and effectiveness with which NPL site cleanups can be accomplished.

FEDERAL CAUSE OF ACTION/LIABILITY

Although Sohio fully supports compensation of those who have been harmed by waste management practices, we feel that the imposition of a federal cause of action as outlined in H.R. 5640 is unjustified. This provision would provide for concurrent jurisdiction in both state and federal courts, multiplying the complexity and decreasing the efficiency of the judicial process, thereby delaying compensation and tying up resources which could otherwise be used to administer site cleanups. There has been no demonstrated lack of either a forum or a cause of action for claims in state court.

H.R. 5640 provides very little definition of what a plaintiff must prove to establish liability. In contrast, there are a number of specific obstacles included which a defendant must overcome in order to avoid liability. Additionally, the requirement of joint and several liability which is included in this bill would extend even to a trivial contributor. Such a contributor, which could very well be a small business, would be liable for the entire amount of damage. This provision would serve to seriously discourage voluntary cleanup activities.

The ultimate result of this type of provision would be to provide redundant compensation to a much larger segment of the population than is actually harmed by waste disposal practices. Rather than the federal cause of action outlined in H.R. 5640, existing worker compensation programs and state toxic tort systems should be relied upon to compensate true victims of waste management practices for illness and loss of income. There is no justification for the expansion in compensation systems which would occur if Title II of H.R. 5640 were enacted.

CONCLUSION

Sohio is concerned about the problems posed by abandoned hazardous waste sites, and supports reauthorization of CERCLA in 1985 in order to continue the cleanup of such sites. However, H.R. 5640 contains numerous provisions which would be detrimental to this goal. In order to make this bill more economically efficient and environmentally effective, Sohio recommends the following:

1. Reauthorize in 1985, following completion and consideration of the CERCLA Section 301(a) study;
2. Reduce funding level to a more realistic amount;
3. Do not use a waste-end tax;
4. Continue the current feedstock tax with an expanded borrowing capacity;
5. Do not include study or regulation of underground storage tanks under CERCLA;
6. Retain complete exclusion of cleanup of petroleum substances from CERCLA;
7. Mandate site-specific CERCLA cleanup standards, based upon local groundwater uses and upon risk factors such as waste toxicity and mobility and area hydrogeology.
8. Concentrate cleanup efforts on "hazardous substances," rather than including "pollutants and contaminants;" and
9. Rely upon existing toxic tort and worker compensation systems rather than instituting a new federal cause of action or liability provisions.

Inclusion of these changes in H.R. 5640 will make it a more workable and effective bill.

Thank you for allowing me the opportunity to share our concerns with you. I will be pleased to answer any questions you may have.

Mr. **Gibbons**. I want to thank each of you very much for the testimony you have given today.

Mr. **Conable**. Thank you also for your patience.

Mr. **Moore**. Mr. Chairman, I have one question for Mr. Blower. I am concerned about his opposition to a waste end tax; one point he made in particular, and that is the possibility of making domestic produced chemicals more noncompetitive if we would pass a waste end tax. I would ask him to answer two questions.

First, what I would like to see us do, and I think the committee would, is exempt from the feedstock tax any exported chemicals. On page 5 of your testimony, you say additional U.S. exports subject to the waste end tax would be placed at a disadvantage in world markets. This would be offset, I assume, by doing away with the feedstock tax on that exported chemical, would it not?

Mr. **Blower**. I expect so, yes, but given the cost of the waste disposal that would be attached to disposal of domestically produced acrylonitrile, we would still see a cost disadvantage that would be difficult to balance out even though such a change would be made in the feedstock tax. That would be a proper direction to go, but I don't think that would be the sole answer.

Mr. **Moore**. Your other comment is that when the foreign feedstock comes in, of course it has a feedstock tax on it. If it is refined or something ultimately winds up being disposed of here, that waste end tax would be paid on it?

Mr. **Blower**. If disposed of here, as I understand it, it would.

Mr. **Moore**. That would offset to some extent again your criticism because you would have to assume that the foreign-produced material would never pay a waste end tax and I could foresee some circumstances where it would.

Mr. **Blower**. I assume with the feedstock coming in that the great bulk of hazardous waste generated from production of that material would have taken place at the point of maximum refining and that the refining would not be done domestically.

Mr. **Moore**. Are there additional products downstream in which you would use that basic feedstock, that you manufacture additional compounds or whatever, that would also create toxic waste that would be subject to the waste end tax?

Mr. **Blower**. I would assume that is correct.

Mr. **Moore**. If you have the opportunity to give the two points I have just made any thought, and putting a pencil to an example, I would ask that you furnish that to the committee. We will be marking this up next Tuesday and I am concerned about that. You are the first witness that has brought that to our attention. While I am in favor of a waste end tax, I am concerned that we not make the petrochemical industry more noncompetitive.

Mr. **Blower**. This is a concern that is down the road, but I think it is one that we are very much concerned about.

Mr. **Moore**. That needs to be treated differently, obviously at a much lesser tax rate or whatever.

Thank you, Mr. Chairman.

Mr. **Gibbons**. Thank you, gentlemen.

[The information follows:]

SOHIO THE STANDARD OIL COMPANY
1001 TWENTY-SECOND STREET N.W., SUITE 600
WASHINGTON, D.C. 20037
TELEPHONE: (202) 785-4888

July 27, 1984

The Honorable W. Henson Moore
2183 Rayburn House Office Building
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Moore:

Thank you for your interest in Sohio's testimony during the hearings held on Wednesday, July 25, on H.R. 5640. As you recall, Sohio testified of its concern that market inequities would be created by imposition of a CERCLA waste-end tax. At those hearings, you asked two questions on this subject. I would like to take this opportunity to provide you with our answers to your questions.

QUESTION:	Would an exemption of exports from feedstock taxes mitigate the inequity associated with payment of a waste-end tax on those exports?
ANSWER:	No. Under CERCLA a feedstock tax is imposed on specific chemicals used, manufactured, or entering the U.S. Trade inequitities caused by a feedstock tax could be mitigated for these specific chemicals by providing rebates when they are exported. Unfortunately, unless a rebate is extended to the full range of products manufactured from the feedstock chemicals, the rebate would not remove the disadvantage to U.S. export manufacturers using domestic feedstocks. Moreover, the simple remedy of a rebate of the tax on exported feedstocks will be of no help to U.S. companies paying a waste-end tax. A waste-end tax is not levied based upon the purchase price of the chemical but is based upon the amount of waste disposed of during the manufacture of the product. Since the waste-end tax is a separate tax from the feedstock tax, a separate rebate system would need to be developed for the waste-end tax in order to not disadvantage U.S. companies exporting products. However, it will prove impossible to determine the appropriate rebate by tracing the waste-end tax through the thousands of products manufactured using chemicals the production of which generates taxable waste.
QUESTION:	Would not imported products eventually be subject to a waste-end tax due to downstream processing or uses?
ANSWER:	No. While some imports may be further processed by methods which generate hazardous wastes, the vast majority of wastes which would be subject to taxation are generated in the

manufacturing processes which occur prior to importation. In addition, most consumer products are not hazardous and therefore would generate no taxable wastes. Therefore, imports would usually be burdened with no waste-end taxes at any point following importation. Accordingly, a waste-end tax would disadvantage U.S. industry in competing for U.S. markets with imports of similar products.

We hope that you will see that there is no practical way to relieve the trade inequities which would be suffered by U.S. manufacturers if a waste-end tax were imposed under CERCLA. Accordingly, Sohio hopes that you will eliminate the waste-end tax proposal found in H.R. 5640.

In order to more adequately describe the trade problems which we anticipate with this type of tax, we have attached a discussion sheet which outlines these numerous inequities.

Thank you for your time and attention to this subject. Please do not hesitate to call me at (216) 575-8031 or Mark Whitenton in Sohio's Washington, D.C. office at 785-4888 if we can provide further assistance or information.

Very truly yours,

Kenneth E. Blower

Kenneth E. Blower
Manager
Corporate Environmental Affairs
Standard Oil Company (Ohio)

KEB/lm/0290E

Attachments

cc: The Honorable Dan Rostenkowski
The Honorable Sam Gibbons
The Honorable Donald J. Pease
The Honorable Barber B. Conable
The Honorable Willis D. Gradison, Jr.

INEQUITIES IMPOSED BY A WASTE-END TAX ON U.S. PRODUCTS IN WORLD MARKETS

Differences Between Waste-End Tax and Feedstock Tax

In order to understand why trade inequities are more difficult to resolve for a waste-end tax than for a feedstock tax, it is important to bear in mind the following differences between the two methods:

- Under H.R. 5640, a feedstock tax would be paid on only 52 chemical and mineral feedstocks and on crude oil, whereas a waste-end tax would be imposed on thousands of wastes and waste combinations which are generated in the manufacture of an even greater number of products.
- Many companies would pay both a feedstock tax and a waste-end tax. However, many products for which a waste-end tax is paid would not have a feedstock tax associated with them. This is particularly true of downstream products such as plastics and fabrics.
- While a feedstock tax is imposed on receipt of crude oil at refineries or on sale of feedstocks, a waste-end tax would be paid on the act of hazardous substance disposal. Such hazardous substances would primarily be produced during manufacturing processes, as most consumer products are not hazardous when they are marketed or disposed of. Although some industrial products are hazardous, they are generally used rather than disposed of due to their commercial value.

Inequities Imposed on U.S. Exports by a Waste-End Tax

- While U.S. exports would have to pay the cost of waste-end taxes, foreign competitors would not have to bear such costs, thereby reducing the competitive edge of U.S. exports.
- It would be extremely difficult to calculate an exemption for exports from a waste-end tax. Many downstream products have absorbed the cost of a waste-end tax at several points along the production chain, and it would be very complicated for industry or regulatory bodies to attempt to determine how much of an exemption should be granted to exported goods so that they can be competitive with foreign goods.
- Many industrial facilities have integrated processes in which numerous products are produced. However, the waste streams in such plants are often combined prior to disposal for environmental, economic, technical, or logistical reasons. Because it is, in many cases, difficult or impossible to determine what waste stream is associated with what product, calculation of an exemption from a waste-end tax for exports produced at such facilities would not be possible. Any attempt to calculate such an exemption would be extremely difficult and time-consuming for regulatory agencies to audit.
- No amount of relief from a feedstock tax will resolve the export inequities associated with a waste-end tax. These two taxes are levied on two entirely different segments of the manufacturing process, and in many cases (such as acrylonitrile) a feedstock tax is not paid on a product, so exemption from a feedstock tax on exports would provide no relief from direct or upstream waste-end taxes paid by the extensive universe of companies which would pay a waste-end tax.

- If U.S. chemicals are granted a relief from a waste-end tax when exported, then the situation could arise in which U.S. chemicals are manufactured abroad into downstream products which are then imported into the U.S. without having to absorb the cost of a waste-end tax. These products would have an economic advantage over products manufactured in the U.S. from the same chemicals. This provides an obvious incentive for U.S. producers to export raw materials overseas for downstream production, regardless of the market destination.

- There is no way to make a waste-end tax equitable to U.S. exports. An exemption from feedstock taxes would provide no relief from this burden, and an exemption from waste-end taxes would be extremely impractical, if not impossible, to calculate. The only way to assure that a waste-end tax does not cause serious trade difficulties for U.S. products is to not impose such a tax in the first place.

Inequities Associated With a Waste-End Tax on Domestic Production

- Imported products would not reflect fees on waste disposal practices, as U.S. products would. While major manufacturing process would be directly responsible for payment of the majority of waste-end taxes, downstream products would have to absorb a portion of this cost, making those products less competitive with imports also. For instance, even at the reduced rate of $5 per ton disposed of by deepwell injection, the imposition of a waste-end tax on Sohio's acrylonitrile manufacturing wastes would reduce the value added to our product by over seven percent. This would not only hurt our competition against imports, but would be detrimental to the 70 percent of our acrylonitrile which is exported as well.

- There is no practical means for placing a waste-end tax on imports, because there is no way to accurately determine the exact processes used to manufacture imported products, the nature and amount of wastes associated with those processes, or the disposal method used to manage those wastes. Because many products can be made via a variety of paths, it is impossible in many cases to even estimate waste generation information for imports. Therefore, imposition of a waste-end tax on imports is an administratively infeasible task. This is particularly true for downstream products, such as blankets, which would reflect the effects of several upstream waste-end taxes if produced in the U.S. but would reflect no such taxes if produced in another country.

- Imposition of a waste-end tax on U.S. wastes but not on imports would create incentives for U.S. manufacturers to utilize raw materials from foreign sources, since those materials would cost less than U.S. materials which reflect a waste-end tax.

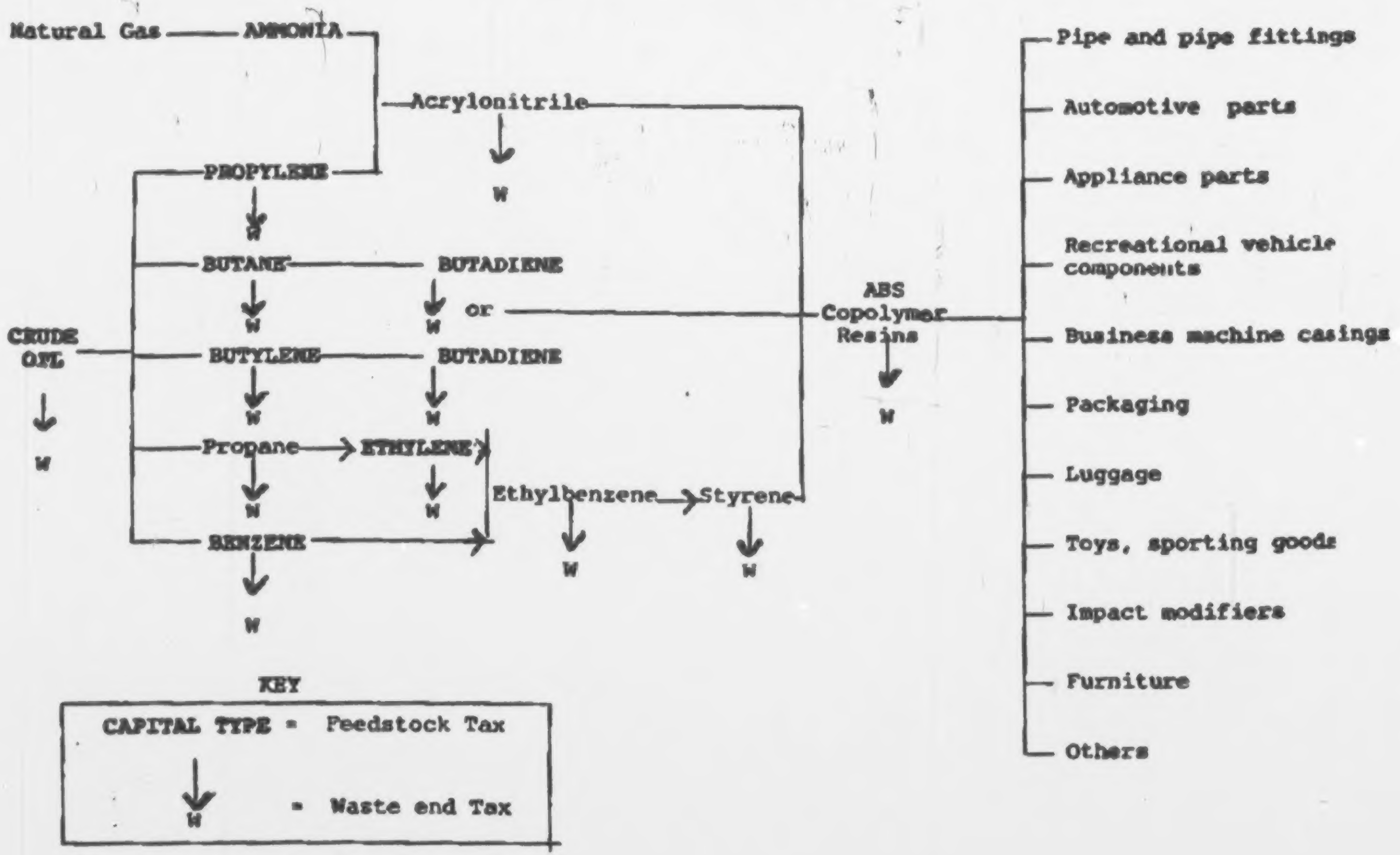
Illustration of Costs Paid By Downstream Products

In order to more clearly illustrate the number of waste-end taxes and feedstock taxes which must be paid along the manufacturing route to consumer goods, we have attached a drawing of a typical chemical tree, from feedstocks to consumer goods. This tree shows that waste-end taxes would be paid at more points than would feedstock taxes, and that downstream product costs will reflect numerous upstream waste-end and feedstock taxes.

Conclusion

Sohio feels that there is no practical way to resolve the trade inequities associated with a waste-end tax, and that for this and other reasons a waste-end tax should not be implemented for any purpose.

TYPICAL CHEMICAL TREE


Natural Gas
AMMONIA
Acrylonitrile
PROPYLENE
BUTANE
BUTADIENE
or
CRUDE OIL
BUTYLENE
BUTADIENE
Propane
ETHYLENE
Ethylbenzene
Styrene
BENZENE
ABS Copolymer Resins
W
Pipe and pipe fittings
Automotive parts
Appliance parts
Recreational vehicle components
Business machine casings
Packaging
Luggage
Toys, sporting goods
Impact modifiers
Furniture
Others
KEY
CAPITAL TYPE = Feedstock Tax
= Waste end Tax

Mr. Gibbons. Our next panel is the Battery Council International, the Chlorine Institute, Aluminum Association, Inc., and the Washington Conference for Zinc, Inc.

Mr. Taylor.

STATEMENT OF EDWARD G. TAYLOR, PRESIDENT, BATTERY COUNCIL INTERNATIONAL AND PRESIDENT, DANIELL BATTERY MANUFACTURING CO., ACCOMPANIED BY ROBERT H. WILBUR, DIRECTOR OF GOVERNMENT RELATIONS, BATTERY COUNCIL INTERNATIONAL

Mr. Taylor. Thank you, Mr. Chairman.

We appreciate the opportunity to bring before this committee the concerns of the automotive and industrial battery manufacturing industry. I am Ed Taylor, president of Daniell Battery Manufacturing Co. of Baton Rouge, LA. I also serve this year as president of the Battery Council International, the trade association of manufacturers of lead acid storage batteries. With me is Robert Wilbur, director of government relations for BCI.

Mr. Chairman, approximately 67 million automotive batteries were manufactured in 1983 in the United States. The industry used 890,000 tons of lead to make these automotive and industrial batteries. The lead-acid battery is a relatively simple product. The typical automotive battery contains approximately 22 pounds of lead and lead oxide. Industrial batteries, which range from those used in electric forklift trucks to the larger and more complex batteries used by utilities for load-leveling and on nuclear submarines, use far more lead. It is worth adding that despite the years of research on exotic batteries, there is no economical substitute for the lead-acid storage battery,and no replacement is on the horizon. In 1984, the industry will pay approximately $1,350,000 under the existing Superfund legislation in tax on the lead oxide component of these batteries.

The lead oxide used in lead-acid storage batteries is approximately 40 percent by weight of the total lead content. The extension of the Superfund tax from lead oxide to all lead in the battery and the increase in the tax rate from $4.14 a ton to $14.94 a ton would have a terrific impact on the industry. The tax we pay—whether directly or passed on to us from our lead suppliers—on lead would go up tenfold—from about $1,350,000 to about $13 million a year. The tax we pay on propylene in the cases and on sulfuric acid would bring the total cost to the battery industry to about $14 million a year.

I would like to make two principal points about this tax, its size, and the way it is implemented.

First, the majority of the lead used in batteries will be recycled. Bureau of Mines figures show that the lead recovered from batteries over the last 3 years is more than 55 percent of all lead used to make new batteries in the same 3 years. This is an industry which recycles. The lead we use this year will be recycled to at least this degree. An industry which uses recycled products and which sees to it that its products are recycled should be encouraged, not penalized.

We ask that the tax rate on lead and lead oxide used by the battery industry be reduced to reflect this recycling. Either the tax rate should be adjusted or a credit should be announced at the start of each year by the Secretary of the Treasury to reduce the Superfund tax on lead to the degree to which the Bureau of Mines figures show that lead was recycled in the most recent year available.

Second, under H.R. 5640, the tax paid per battery would amount to approximately $.15 per battery. This is enough to upset the competitive equilibrium between domestic and imported products. While imported lead would be taxed under the bill, a product like a battery, which is by weight predominately lead or its immediate derivative, lead oxide, would not be taxed. Battery imports rose from 1980 to 1983 by 130 percent—from $46 million to $107 million.

One reason for this increase in imports is that many of the overseas manufacturers are not incurring the very large costs of U.S. firms for compliance with OSHA and EPA regulations.

Mr. Chairman, the battery industry is prepared to do its part in protecting our environment and our workers. We ask that this burden be fair, that it be reduced to recognize the environmentally sound contribution of recycling in our industry, and that any tax paid by the U.S. battery industry should apply equally to imported products, such as batteries, which contain a significant amount of a taxable substance in its elemental form or an immediate derivative which can readily be measured.

We are submitting for consideration by the committee a position paper which gives further details of the points I have tried to raise.

We thank you for your consideration.

[The position paper follows:]

Battery Council International,
Washington, DC, July 27, 1984.

Hon. Dan Rostenkowski,
U.S. House of Representatives,
Rayburn House Office Building, Washington, DC.

Dear Mr. Rostenkowski: The pending "Superfund Expansion and Protection Act of 1984" would increase the tax burden on the battery industry ten-fold-despite the fact that most lead used in battery manufacture is recycled and does not, therefore, contribute to the waste disposal problems that the Superfund is created to handle.

The battery industry already pays a Superfund tax on lead oxide, propylene, and sulfuric acid which amounts to close to two million dollars a year—a major contribution to Superfund from this one industry. About $1.2 million is paid by the industry on the lead oxide it manufactures or uses.

The bill, as you know, would extend the tax to lead as well as lead oxide and greatly increase the tax rate. The tax we would incur on the lead used in a battery would be about $12 million a year—an overwhelming impact on this one industry and its customers.

We ask: If tax is placed on lead in a reauthorized Superfund, that a credit or reduction be granted to lead producers according to the percentage of lead that is recycled; that a fee on imported batteries and other products which contain more than fifty percent of their weight in taxable chemicals—such as lead and lead oxide—be established to equalize the effects of this tax between domestic producers and importers.

Enclosed is a position paper explaining the impact on the battery industry and the reasons for these recommendations in greater detail. Please call me if we can elaborate on these points.

Sincerely,

Robert H. Wilbur,
Director of Government Relations.

Enclosure.

RECOMMENDATIONS OF THE BATTERY COUNCIL INTERNATIONAL ON H.R. 5640, THE SUPERFUND EXPANSION AND PROTECTION ACT OF 1984.

The Battery Council International (BCI) believes that:

1. The proposed tax on "feedstock" chemicals should be reduced or rebated to the party which pays the tax to the extent that the industry's products are recycled; and that

2. Equality between domestic and imported products should be preserved by placing a fee on imported products made from or containing a substantial percentage of a taxable substance which will equal the costs accruing to the domestic industry under this Act.

BCI is a trade association representing 50 domestic manufacturers of lead-acid storage batteries, including seven large, integrated firms which account for 85 percent of U.S. production. The remaining 43 member companies are independent, regional manufacturers, many of them extremely small.

I. Recycling

It should be the purpose of the Act to encourage environmentally sound recovery as an alternative to disposal. Therefore, BCI recommends the Secretary of the Treasury should be instructed by Congress to reduce the fee imposed on any chemical or raw material under the Act by the percentage of that chemical or raw material that is recycled into the production of new substances subject to the fee.

Particularly with regard to lead, which H.R. 5640 lists as a chemical subject to tax, BCI believes such an adjustment is justified. The Bureau of Mines Minerals Yearbook for 1982 (the most recent statistics available) indicates that 744,755.3 tons of lead and lead oxide were used in battery manufacture in the United States in 1982, and that 480,916.7 tons of lead were recovered from lead battery plates in that year. In other words, approximately 62% of all lead used in battery manufacture in 1982 was recovered from recycled batteries. Because this percentage of the lead used in battery manufacture in 1985 and subsequent years will be recycled, instead of disposed of, BCI believes that if a tax on lead is retained in the Act, it should be reduced by this amount.

This recycling is environmentally right and should be encouraged. Metals, when recycled, are obviously removed from potential harm to the environment which might occur if products made from them were disposed of, either in dumps or regulated land fills.

BCI believes this adjustment is critical due to the economic impact the proposed tax will have on battery manufacturers. H.R. 5640 significantly expands the chemicals involved in battery manufacturing subject to tax and will increase the tax liability approximately ten fold. The original "Superfund tax" contained in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 included lead oxide in the list of chemicals subject to the tax. The typical automobile battery contains approximately 22 pounds of lead, of which approximately nine pounds is lead oxide. Battery manufacture includes the conversion of metallic lead into battery oxide, the pasting of oxide onto grids, assembly of the component parts, and charging of the finished battery. Battery oxide, the basic material for both positive and negative active material in battery plates, is comprised of approximately 30 percent metallic lead and 70 percent lead oxide. The proposed new tax would apply to the four pounds of metallic lead contained in battery oxide and also to the nine pounds of metallic lead contained in battery grids and posts. In other words, the newly proposed tax would apply for the first time to an additional 60 percent, or 13 pounds, of the lead in a typical automobile battery.

In 1982, 301,640.57 tons of lead oxide was used in battery manufacture in the United States. At a tax rate of $4.14 per ton, the 1982 tax on lead oxide was $1,248,800. An additional tax on the sulfuric acid and propylene used in battery manufacturing costs the industry approximately $373,000, for a total of $1,621,800. This already represents a very large contribution by our industry to the Comprehensive Environmental Response Fund. The proposed tax of $14.94 per ton would result in a total tax liability (at 1982 production rates) on lead of $11,574,844, and on sulfuric acid and propylene of $986,000. Compared to the tax under the current law, this represents an increase in tax liability for the battery manufacturing industry on lead used of nearly 1000 percent.

II. Equality of fees on domestic and imported products

As taxes on raw materials under Superfund are increased, a significant competitive disparity arises between products manufactured domestically and those imported from overseas. This disparity is most obvious when the manufactured product, as in the case of an automotive battery contains a substantial amount of a taxable substance (such as lead) in its original form or in a simple compound (lead oxide) which is easily measurable.

At the tax rates proposed in H.R. 5640, the tax paid on each automotive battery will be approximately $.15. This is sufficient to create a market disadvantage for domestic producers who already face rising costs of environmental protection not incurred by many foreign manufacturers. Imports of lead acid batteries, which rose between 1980 and 1983 by 130 percent (from $46 to $107 million) are continuing sharply upwards.

To correct the competitive disadvantage which will be made worse by any increase in Superfund taxes, we recommend that a fee be placed on an imported product which contains fifty percent or more of a taxable chemical or its compounds equal to the costs incurred for manufacture or purchase of taxable raw materials by the domestic producer of that manufactured product.

Mr. GIBBONS. Thank you.

Mr. DiLiddo.

STATEMENT OF BART A. DiLIDDO, VICE CHAIRMAN, CHLORINE INSTITUTE, AND PRESIDENT, B.F. GOODRICH CHEMICAL GROUP

Mr. DILIDDO. Thank you. I am Bart DiLiddo, president of the B.F. Goodrich Chemical Group. I am also vice chairman of the Chlorine Institute. It is on behalf of that institute that I am testifying today.

The members of the Chlorine Institute are deeply concerned with the provisions of H.R. 5640 as it is presently drafted and we are grateful for the opportunity to express some of those concerns to this committee.

While there are several serious issues raised by H.R. 5640, I shall limit my remarks here to those issues squarely within the purview of this committee, namely how big should the Superfund be and what taxing mechanism should be employed to raise and maintain the fund.

Our comments with respect to the size of the fund may be briefly stated.

We support the Superfund program.

We support getting on with the cleanup job.

We support getting it done rapidly and effectively.

We recognize the need for a larger Superfund.

We are concerned, however, that at the spending level proposed in H.R. 5640—more than $2 billion annually—more money should be raised than the EPA says it can spend in an effective manner.

The new Superfund size should be brought more into line with the EPA's ability to "gear up" to the cleanup job. We believe that the EPA cannot possibly spend more than $850 million per year for the next few years. EPA has in fact stated that it will be prepared to spend at a rate of only $650 million per year by the fourth quarter of 1985.

Even more important than the size of Superfund, however, is the problem of relying almost entirely on a feedstock tax to raise the fund. Under the current taxing system, chlorine and its coproduct caustic soda pay more in Superfund taxes than any other chemicals save ethylene and propylene. This is true even though 80 percent of chlorine and a full 100 percent of caustic soda go into end products that do not contribute to the waste problem. For example, chlorine is used to purify our drinking water and to treat sewage at municipal waste treatment plants.

The present and the proposed feedstock tax results in yet another inequity. Chlorine and caustic soda are required to pay the feedstock tax even where they are produced as part of a continuous process and have only a fleeting or transitory existence. Hence, even though the transitory chlorine or caustic soda cannot possibly contribute to the hazardous waste problem, they are nevertheless reqired to pay a substantial tax.

The problem of substantial tax inequities resulting from the feedstock tax mechanism, however, goes well beyond chlorine and caustic soda. This mechanism created a situation where only a dozen companies are paying almost 70 percent of the Superfund taxes. There must be a more equitable way to apportion the tax burden so that everyone who is or has been part of the hazardous waste disposal problem is part of the Superfund solution. As long as only a handful of companies continue to pay almost all the tax, rapid and effective cleanups under Superfund will be of little concern to the thousands of people who handle and dispose of hazardous waste daily.

We strongly believe that a more equitable allocation of the tax can be achieved through the addition of a waste end tax imposed upon the receipt of the hazardous waste for land disposal or long-term storage. Such a waste end tax on disposal would not only give disposers of hazardous waste a stake in the cleanup program but it would also have other beneficial consequences.

Such a tax would encourage the use of safer alternative treatment methods by making them competitive with land disposal. It would also provide an economic incentive to reduce the amount of hazardous wastes being generated and disposed of.

Finally, we believe that H.R. 5640 should strongly encourage hazardous waste treatment over land disposal by making clear that such treatment is not subject to the waste disposal tax.

In sum, a waste end tax represents not only a more equitable allocation of cleanup costs, but also a more effective, incentive-based attack on the hazardous waste problem.

Thank you.

STATEMENT OF JOHN C. BARD, PRESIDENT, ALUMINUM ASSOCIATION, INC.

Mr. GIBBONS. Thank you, sir.

Mr. Bard.

Mr. BARD. Thank you, Mr. Chairman.

I am John Bard, president of the Aluminum Association. Our association represents producers of virtually all the primary aluminum and 85 percent of the semifabricated aluminum products produced in the United States.

While the aluminum industry supports a program for cleanup of hazardous waste sites, we oppose the $1.53 per ton tax on aluminum proposed in section 504 of H.R. 5640. You have a copy of our more expanded treatment of this subject. I would like to summarize the points we would like you to especially consider.

First of all, the aluminum industry believes that the feedstock tax should be imposed on substances which contribute directly to hazardous waste disposal sites on the national priority list [NPL] and which create the problem in those sites.

Aluminum is the third most abundant element in nature. It could be found in almost any environmental sample.

Metallic aluminum does not present a hazard to human health or environment. I think that is well documented.

Nonetheless, EPA produced a document called "Rationale for Taxing Aluminum", which cites the hazardous nature of certain aluminum compounds as the basis to impose a "feedstock" tax on the aluminum metal. These compounds are not products of the aluminum industry and do not justify such a tax on the industry.

Waste products from the aluminum production process which have been found at Superfund sites are not unique to the aluminum industry. And these processing items; oils, solvents, and so on; are taxed as feedstocks.

Other metals against which we compete are not subject to a feedstock tax and the identification of aluminum as a hazardous substance creates serious marketplace implications.

We urge the Congress not to single out aluminum to be taxed under the proposed legislation and to strike the tax on aluminum from Section 504 of H.R. 5640.

[The prepared statement follows:]

STATEMENT OF JOHN C. BARD, PRESIDENT, ALUMINUM ASSOCIATION, INC.

SUMMARY

The Aluminum Association opposes the $1.53 per ton tax on aluminum proposed in Section 504 of H.R. 5640 for the following reasons:

The Aluminum industry believes that the "feedstock" tax should be imposed on substances which contribute directly to hazardous waste disposal sites on the National Priority List (NPL) and which create the problems in those sites.

Aluminum is the third most abundant element in nature. It could be found in almost any environment sample.

Metallic aluminum does not present a hazard to human health or environment.

None the less, the EPA document "Rationale for Taxing Aluminum" cites the hazardous nature of certain aluminum compounds as the basis to impose a "feedstock" tax on aluminum metal. These compounds are not products of the aluminum industry and do not justify such a tax.

Waste products from the aluminum production process which have been found at Superfund sites are not unique to the aluminum industry.

Other metals against which we compete are not subject to a feedstock tax and the identification of aluminum as a hazardous substance creates serious marketplace implications.

We urge the Congress not to single out aluminum to be taxed under the proposed legislation and to strike the tax on aluminum from Section 504 of H.R. 5640.

STATEMENT

Thank you, Mr. Chairman. I am John C. Bard, President of the Aluminum Association. The Aluminum Association represents producers of virtually all the primary aluminum and 85 percent of the semifabricated aluminum products produced in the United States.

While the aluminum industry supports the continuation of a Federal cleanup program for orphaned or abandoned hazardous waste sites, we oppose the $1.53 per ton tax on aluminum proposed in Section 504 of H.R. 5640 for the following reasons:

The so called "feedstock" tax should be imposed on substances which contribute directly to hazardous waste disposal sites on the National Priority List (NPL) and which create the problems in those sites. The current system of feedstock taxes is working. It fairly imposes the economic costs of Superfund cleanup upon the production and use of those chemicals and compounds which find their way to hazardous waste sites.

Aluminum is the third most abundant element in nature. It could be found in almost any environmental sample.

Metallic aluminum does not present a hazard to human health or environment.

None the less, the EPA document "Rationale for Taxing Aluminum" cites the hazardous nature of certain aluminum compounds as the basis to impose a "feedstock" tax on aluminum metal. These compounds are not products of the aluminum industry and do not justify such a tax.

Waste products from the aluminum production process which have been found at Superfund sites are not unique to the aluminum industry.

Other metals against which we compete are not subject to a feedstock tax and the identification of aluminum as a hazardous substance creates serious marketplace implications.

What is aluminum and aluminum metal

Aluminum is the third most abundant element in nature. Aluminum is everywhere; it is found in soils and clays, minerals and rocks and even in water—but not as a metal. The aluminum industry chemically extracts aluminum from bauxite, electrolytically reduces alumina to free the aluminum from oxygen and puts aluminum into its metallic form. It is produced through the reduction process and converted into products sold in markets which include automobiles, airplanes, cooking utensils, beverage containers, foil and numerous other consumer applications. Attached to our statement is a paper describing aluminum.

Metallic aluminum does not pose human health or environmental hazards

The Aluminum Association has sponsored independent literature reviews on health effects of aluminum at the University of Cincinnati since 1955. The findings conclude that there is no need for concern among the public regarding hazards to human health from ordinary exposure to aluminum or its compounds.

In the May 19, 1980 Federal Register, the Environmental Protection Agency (EPA) published its final rule on hazardous waste management. Four criteria were defined for establishing whether or not a solid material is hazardous, including the characteristic of EP (extraction procedure) toxicity. Using this procedure, a substance would be considered hazardous if the extract contains any contaminants in concentrations greater than 100 times that specified in the National Interim Primary Drinking Water Standards (NIPDWS). The Drinking Water Standards contain no limit for aluminum.

Further, the Food and Drug Administration (FDA) classifies many aluminum compounds as "Generally Recognized as Safe."

"Rationale" does not justify an aluminum tax

The only basis for an aluminum feedstock tax appears to rest with a document titled "Rationale For Taxing Aluminum". A copy is attached. This paper, provided to us by the staff of the House Committee on Energy and Commerce, purports to be based on Superfund studies conducted for the EPA. In our view, it does not provide justification for placing a tax on aluminum.

The rationale asserts that aluminum compounds have been found at 14 of 881 hazardous ranking system scored sites. Information provided by the Senate Environment and Public Works Committee indicates that an EPA analysis of hazardous waste sites shows 13 instances of contributions from "aluminum or aluminum compounds". In meetings with EPA, we have been told aluminum or aluminum compounds have been found at 18 sites.

Our attempts to secure from EPA the detailed information on which this paper is based have been unsuccessful. We do not know what compounds have been identified in any of these instances and to what extent contamination may have been caused by such contributions. Wastes identified with aluminum production found at Superfund sites are not unique to the aluminum production process.

Part of the rationale for imposing this tax appears to be that certain aluminum compounds have been designated hazardous under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidelines.

Specifically, aluminum sulfate has been designated under the Clean Water Act (CWA) and aluminum phosphide has been designated under the Resource Conservation and Recovery Act (RCRA). Additionally, the analysis indicates that aluminum powder, aluminum dross and several additional aluminum compounds (i.e. aluminum alkyls, aluminum bromide, aluminum hydroxide, aluminum nitrate, and aluminum phosphate solution) are listed as hazardous materials under the Department of Transportation Hazardous Materials Regulations. The listing of hazardous material under DOT regulations does not mean that a material is automatically a CERCLA hazardous substance. For example, aluminum powder is on the DOT list because it is an explosive. With respect to CERCLA hazardous substances, only aluminum sulfate and aluminum phosphide have been specifically listed. Whether the other aluminum compounds qualify as hazardous under the CERCLA criteria has not been demonstrated.

Whatever the circumstances of this toxicity, these compounds are not metallic aluminum. Aluminum metal as a waste dump constitutes no known hazard. To impose a tax on aluminum metal production because two unrelated chemical substances contain aluminum is not justified. The two substances named are in no way associated with production of primary aluminum.

Aluminum wastes at superfund sites are not unique

The aluminum industry does not produce wastes which justify the imposition of a feedstock tax. Wastes from the production of aluminum—such as oils, solvents, caustic soda, PCB contaminated fluids—which have been found at Superfund sites result from the addition of substances generally used in the fabrication process of most manufacturing industries. These substances would already be taxed through the feedstock mechanism. Additional comments on the "Rationale for Taxing Aluminum" are attached.

An aluminum tax creates competitive and marketplace implications

Other metals against which we compete, such as steel and copper, are not taxed under H.R 5640. Imposing a tax on aluminum would be a tax to our industry's products which competing metals would not have to meet.

More than one third of U.S. aluminum production goes into consumer goods. The listing of aluminum as an environmentally taxable substance creates a serious implication that it is a toxic substance causing harm to people and the environment—having severe impacts in the marketplace. The choice of aluminum foil for wrapping, aluminum cans for beverages and food products, and pots and pans for cooking could be seriously jeopardized by the identification of aluminum as a hazardous substance.

We urge the Congress not to single out aluminum to be taxed under the proposed legislation and to strike the tax on aluminum from Section 504 of H.R. 5640.

Thank you for the opportunity to present our views.

WHAT IS ALUMINUM?

To most people, aluminum is a light, silvery metal used to make a variety of products from airplanes and automobiles to pots and pans and baseball bats; nearly everyone uses aluminum foil. However, it is much more than that. Aluminum is a chemical element—one of 90 naturally occurring elements on earth that serve as the building blocks in nature.

As an element, aluminum has unique physical and chemical properties. It is the third most abundant element in nature, representing about eight percent of the earth's crust, or surface. Only oxygen and silicon are found in greater quantities. Aluminum is everywhere; it is present in soils and clays, minerals and rocks and even in water—but not as a metal.

THE 12 MOST ABUNDANT ELEMENTS IN THE EARTH'S CRUST

	Chemical symbol	Percent by weight in solid portion of Earth's crust
Element:		
Oxygen	O	47.3
Silicon	Si	27.7
Aluminum	Al	7.9
Iron	Fe	4.5
Calcium	Ca	3.5
Sodium	Na	2.5
Potassium	K	2.5
Magnesium	Mg	2.2
Titanium	Ti	0.5
Hydrogen	H	0.2
Carbon	C	0.2
Chlorine	Cl	0.1

That is because aluminum is a very chemically active element. Because of its chemical activity, and particularly its affinity for oxygen, aluminum is not found in its free, or metallic, state in nature; indeed, metallic aluminum was unknown until about 150 years ago. Instead, aluminum is always found chemically combined with other elements, particularly oxygen. Just as silicon and oxygen combine to form silica, commonly seen as sand and as quartz in most rocks, aluminum and oxygen combine to form alumina, commonly found in soil and clay and as the minerals corundum, sapphire and ruby. Bauxite, a clay-like substance that is the principal ore of aluminum, is a combination of alumina, silica and iron oxides.

Most elements, including aluminum, have three forms: combined, ionic and uncombined or "free", (A few elements are relatively inert and do not readily react with other species.)

ALUMINUM COMPOUNDS

Aluminum will combine chemically with other elements in fixed ratios to form new species called compounds. Compounds have appearance and properties far different than the elements comprising them; the elements completely lose their identity when combined in a compound. The classic example is the combination of two reactive gases, hydrogen and oxygen, which combine to form water, a liquid at room temperature. Aluminum's favorite "partner" in such combinations is oxygen, and aluminum will combine with oxygen whenever it is able to do so. Aluminum compounds, and not the metal, are the "natural" forms of aluminum and the way aluminum is found in nature—not as a metal, but as compounds—combined with other elements.

IONIC ALUMINUM

While most aluminum compounds will not dissolve in water, some do. A notable example is aluminum sulfate, commonly known as alum, extensively used in water treatment facilities. In solution, aluminum is released from the other portion of the compound as a positively charged ion, which is free to move about to form new combinations. If one of the new compounds is insoluble, then it precipitates from the solution; otherwise aluminum will remain as a free ion whose source cannot be identified.

METALLIC ALUMINUM

This is the recognizable form of aluminum, although it has only existed in appreciable quantities in this form for the past 100 years. The aluminum industry reduces alumina, that is "frees" aluminum from oxygen and puts it into its metallic, "useful" form. Only an infinitesimally small percentage of naturally occurring aluminum has been thus converted. The properties of metallic aluminum are well known, and have been summerized elsewhere. Even in its metallic form, however, aluminum remains a chemically active element.

ALUMINUM OXIDE

What makes aluminum usable as a metal is that it instantly forms a thin layer of protective oxide by reacting with the oxygen in air. Once formed, the oxide adheres tightly to the metal surface and protects it from further oxidation and from attack by other elements. However, the oxide is only stable in a pH range of about 4.5 to 9, which means that aluminum is subject to attack by both acids and alkalies. This property of aluminum oxide has recently come to light in the controversies concerning acid rain phenomena. Acid precipitation could break down the aluminum oxide, stable and inert in nature since the dawn of time, and release ionic aluminum from the soil. Once in a body of water, the aluminum will tend to precipitate out of solution as the waters are neutralized. Very little aluminum ion is normally present in neutral waters.

Excerpted from "Aluminum in Nature, In the Body and Its Relationship to Human Health," presented at the 18th Annual Conference on Trace Substances in Environmental Health, by Seymour G. Epstein, Technical Director, The Aluminum Association, Inc., June 1984.

COMMENTS ON TAXATION OF ALUMINUM AND OTHER FUNDING ISSUES INCLUDED IN H.R. 5640

(Prepared by the Aluminum Association, Inc.)

ALUMINUM TAX

The aluminum industry believes that the "feedstock" tax under Secion 504 of H.R. 5640 should be imposed on industries contributing to hazardous waste disposal sites on the National Priority List (NPL) which have created the majority of the problems at those sites. Neither aluminum nor aluminum compounds have been the source of contamination at NPL sites. Compounds that appear to form the basis for a tax on aluminum are products of the chemical industry, not the aluminum industry.

The legislative history of the CERCLA indicates that the institution of the Superfund is intended to cover those substances that are the building blocks of hazardous waste. Aluminum metal has very little relationship to the wastes found at NPL sites.

According to information ("Rationale for Taxing Aluminum") provided by the drafters of the legislation (copy attached), aluminum contributions have been found at 14 of the 881 hazardous ranking system scored sites (1.6% of this total). The wastes that have been found at these sites are not unique to the aluminum production process. Those wastes identified with aluminum production--such as oils, solvents, caustic soda, PCB contaminated hydraulic fluids—are generally used in the fabrication process in the ferrous and nonferrous metals industry. These compounds are not aluminum specific, but are generically related to the fabrication processes in most manufacturing industries.

Aluminum is the most abundant metallic element on earth. Thus, it could be found in almost any environmental sample taken from any hazardous or non-hazardous waste disposal site. The discovery of aluminum or its compounds at NPL sites is not surprising. However, it does not indicate that aluminum production is part of the building block process leading to the generation of hazardous waste.

Part of the rationale for imposing this tax is that certain aluminum compounds have been designated hazardous under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) guidelines. Specifically, aluminum sulfate has been designated under the Clean Water Act (CWA) and aluminum phosphide has been designated under the Resource Conservation and Recovery Act (RCRA). Additionally, the rationale indicates that aluminum powder and several additional aluminum compounds (i.e. aluminum alkyls, aluminum bromide, aluminum dross, aluminum hydroxide, aluminum nitrate, and aluminum phosphate solution) are listed as hazardous materials under the Department of Transportation Hazardous Materials Regulation. According to the definition of a hazardous substance under Section 101(14) of CERCLA, being listed as a DOT hazardous material does not mean that a material is automatically a CERCLA hazardous substance.

With respect to CERCLA hazardous substances, only aluminum sulfate and aluminum phosphide have been specifically listed. Although other aluminum compounds may qualify as hazardous under the RCRA ignitability or reactivity criteria, this has not been demonstrated. To impose a tax on aluminum production because two hazardous substances contain aluminum is not justified. The two substances named are not associated with waste generated by the aluminum industry. These two substances are products of the chemical industry. Aluminum sulfate is commercially produced from bauxite and sulfuric acid, and thus is not related to output from the aluminum industry. Aluminum phosphide is commerically produced from phosphorus and aluminum powder.

In regard to the toxicity of these compounds, aluminum sulfate is used for water purification, and it and other aluminum compounds are used as food additives. Aluminum phosphide is an animal feed additive for the control of the grain weevil. It is a fumigant and naturally would be toxic if enough were ingested.

The taxation of aluminum metal does not address either its contribution to hazardous waste sites during the production process or the relationship of the materials found at sites to the processes which have created those materials. We believe it is more appropriate to place a feedstock tax on the chemicals which are creating the problems at NPL sites, rather than on the processes or users of those chemicals.

Nine copper compounds and ten iron compounds are listed as hazardous substances by the CWA and RCRA. However, no tax on these two commodities is proposed by H.R. 5640. Imposing a tax on aluminum would add a tax to our products which would not have to be met by other metals industries against which we compete.

In summary, the aluminum industry simply does not generate the types or quantities of wastes that would justify the imposition of a feedstock tax on aluminum. The current feedstock tax is working and it fairly imposes the economic costs of Superfund cleanup upon production and use of those chemicals which find their way to NPL sites. Although the manufacturers of those chemicals bear the administrative burden of paying the feedstock tax, we, the users of those chemicals, clearly incur the intended level of the tax which would include the purchase price of that chemical. Through the feedstock mechanism, Congress has created an incentive for the users of the taxed chemicals to search for alternative methods which do not employ those chemicals and, therefore, avoid ultimate disposal of waste containing hazardous chemicals.

FUNDING LEVELS

The Association believes that the current level of funding is adequate to support EPA activities in Superfund cleanup for the next five years. In some cases, the short history of Superfund has demonstrated that EPA and the Department of Justice are becoming increasingly successful in identifying sites and in negotiating agreements which allow industry to clean up those sites in an environmentally acceptable manner with their own funds.

Many companies, including some aluminum manufacturers, have agreed to participate in privately funded cleanup actions which would free existing Superfund money to be expended at other NPL sites where responsible parties have been identified or settlement where responsible parties cannot be reached.

In other cases, EPA has frozen settlements sought by industry in endless litigation by inflexible negotiating procedures. Industry resistance, government delay in site cleanup, and economic waste are all fostered by the current emphasis on enforcement actions to recoup the fund, rather than on encouraging fair, voluntary cooperation and contribution. Section 115 of H.R. 5640 would amend CERCLA stating that liability would be "strict, joint and several." This amendment by mandating joint and several liability would produce inequitable results in hundreds of cases. Applying common law and equitable principles in light of the legislative history of CERCLA, seven federal district courts have ruled that joint and several may be applied in appropriate circumstances only and not where it would produce inequitable results.

EPA has available to it, one year before the end of the currently authorized Superfund legislation, about $587 million. Contributions to the fund in 1984 are higher than in any of the three previous years. Current levels of funding are adequate to meet EPA and Department of Justice cleanup and enforcement expenses for at least the next five years. There appears to be no justification for significantly increasing the size of the fund to the level proposed by H.R. 5640.

H.R. 5640 also contains a mechanism for taxes (fees) on the disposal of hazardous waste. While this concept, in theory, would provide a significant incentive for waste reduction, it presents overwhelming practical and administrative problems. In those states that have implemented a waste-end tax, it has been shown to be difficult to administer and ineffective in meeting the conflicting goals of raising revenues and reducing waste generation. The record clearly bears out that the administrative problems are simply not cost effective. The tax becomes a financial incentive to avoid a waste classification. Thus, it seems impossible for Congress to hope to come close to achieving targeted revenues unless the mechanism is limited to a minor element of fundraising and, as a minor fundraising element, the administrative burdens far outweigh the beneficial use of funds generated. Such costs contribute nothing towards solving the environmental problems they are intended to address.

PROVIDED BY STAFF, COMMITTEE ON ENERGY AND COMMERCE, U.S. HOUSE OF REPRESENTATIVES

RATIONALE FOR TAXING ALUMINUM

All primary aluminum manufactured in the U.S. is manufactured by the electorlytic reduction of alumina, the product of bauxite refining. Raw materials used in aluminum manufacture include alumina, coal coke, coal pitch, cryolite, and aluminum fluoride.

Hazards

Aluminum sulfate and aluminum phosphide are designated as hazardous under the CWA and RCRA, respectively, and are, therefore, CERCLA hazardous substances. Aluminum powder and several aluminum compounds are are listed as hazardous materials under the DOT's Hazardous Materials Regulations (HMR).

Some aluminum compounds (e.g., aluminum phosphide) are highly toxic when ingestd or inhaled, and others are irritants to tissue (e.g., aluminum sulfate).

Aluminum powder has been reported to cause pulmonary fibrosis. In addition, aluminum powder can cause explosions when exposed to heat or flame or when in contact with powerful oxidizing chemicals.

Occurrence

Aluminum compounds are fund at 14 of the 881 Hazardous Ranking system scored sites.

Production

The manufacture of aluminum involves many steps, all of which create wastes.

The manufacture of anodes from coal coke and pitch generates coke dust and gases containing chrysene, flurorene, and pyrene.

Cathode manufacture and relining creates wastes including fluorides and cyanides.

The waste solution after reduction contains aluminum, nickel, arsenic, lead, and other metals associated with the raw materials.

Degassing the aluminum with chlorine generates hydrochloric acid.

U.S. production and imports of aluminum in 1982 were:

[In millions of short tons]

Source:	
Primary production	3.61
Secondary production	0.86
Total U.S. production	4.47
Imports	0.97

Mr. GIBBONS. I don't know much about chemistry, but I don't know how it got in there.

Mr. BARD. Sir, I know how it got in there, but I don't know why.

Mr. GIBBONS. OK.

Mr. Bauer.

STATEMENT OF R.J. BAUER, CHAIRMAN, WASHINGTON CONFERENCE FOR ZINC, INC., AND PRESIDENT, EASTERN ALLOYS, MAYBROOK, NY

Mr. BAUER. Thank you, Mr. Chairman.

I am Richard Bauer, president of Eastern Alloys, Maybrook, NY, chairman of the Washington Conference for Zinc, Inc., with offices at 900 17th Street, NW., suite 504, Washington, DC. 20006.

The Washington Conference for Zinc grew out of a meeting in Washington on the Superfund reauthorization legislation. Attending the meeting were representatives of many segments of the zinc industry, including United States and foreign producers, independent alloyers, trading companies and hot dip galvanizers. The industry was briefed by the House and Senate staff personnel on the inclusion of zinc in both the feedstock and waste-end provisions of H.R. 5640.

Zinc is an essential and versatile mineral, ranking fourth in metal production following steel, copper and aluminum. The zinc industry exerts worldwide influence in mining, smelting and trade.

Zinc industry operations consist of much more than extraction of the mineral from the ground. Production, alloying, die casting, brass and bronze production and galvanizing are the major segments of the zinc metal industry, each providing employment for thousands of Americans as well as consumer items ranging from eyeglass frames to firehose couplings, carburetors and computer components.

Zinc has no known adverse physiological effects upon man except at very high concentrations. In fact, zinc is an essential mineral for the growth and development of almost all life, from microorganism to man. Man's estimated daily intake of zinc is about 10–15 mg, close to the U.S. recommended daily allowance of 15 mg.

The Washington Conference for Zinc understands that one of the purposes of H.R. 5640 is to broaden the Superfund tax base and to increase the amount of revenues to clean up hazardous wastesites. This is why the Energy and Commerce Committee has recommended to you that zinc be included within the Superfund bill.

However, we urge that this committee exclude zinc from that broadened tax base because zinc in all its forms is not a contributor to the hazardous wastesite problem. We firmly believe that the zinc industry should not be subjected to a tax that would be punitive in nature.

I would like to describe the alloying industry and its process to illustrate how crippling a $14.94-per-ton tax would be to the zinc industry.

Alloyers supply the casting and forging industries who produce components for automobiles, builder's hardware, electric utilities, electronic products and hundreds of other consumer items.

Independent zinc alloyers are a channel of distribution for approximately a quarter of a million tons of zinc per year. The independent alloyers, virtually all of which are family founded, owned and operated, operate on a narrow profit margin.

In order to produce a specific alloy requested by an alloyer's customer, the alloyer must buy the most expensive grade of zinc, known in the industry as special high grade zinc. It is then mixed with alloying materials, tested with the best technology available to meet specification requirements, and then shipped to their customers, members of the casting and foundry industries.

Alloyers do not realize a large profit on each ton of alloy we ship because our customers are small businesses that comprise the zinc die casting industry. We extend credit on very generous terms, ship small loads, and many alloying companies, like my firm, provide technical services and support for the die casting industry.

A $14.94-per-ton tax would detrimentally affect this delicate infrastructure. The $14.94-per-ton tax would be passed on from the producer to the alloyer to the die caster and to the ultimate consumer.

The tax would amount to an additional cost of a penny per pound for zinc alloy. A pound of alloy currently sells for approximately 56 cents. An additional penny in an item that sells for 56 cents can be critical to sales and to profits in an industry that is struggling to recover and regain its market. We are still engaged in severe market competition with the plastics industry.

We recently requested the Trade Subcommittee of this committee to suspend the 1.7 percent ad valorem duty on slab zinc because U.S. producers can provide only 30 percent of the current domestic zinc requirements. In fact, U.S. producers have enough zinc for only a small number of U.S. zinc alloyers, and we have to rely on imports for 90 percent of our raw material, special high-grade zinc.

It was not our intention to harm the few remaining U.S. producers, but as the price of zinc began to rise during the recent economic recovery, we wanted to avoid paying an additional 1 cent per pound for 90 percent of our raw material which we must import from Canada, Mexico, Australia, Peru, European nations and other overseas sources.

We need and still need this margin to remain competitive. We certainly do not need the additional cost of at least a cent per pound that would be added if H.R. 5640 is enacted in its current form.

The Washington Conference for Zinc also is gravely concerned with a recommendation of the Energy and Commerce Committee on H.R. 5640 to impose a new 5-percent tax on the landed value of certain taxable substances imported into the United States. A taxable substance for the purpose of this tax would be any substance immediately derived from a taxable chemical listed in the table under section 4661.

The language of the recommendation is vague, ambiguous and confusing.

The Joint Committee on Taxation, in its report, "Background and Issues Relating to H.R. 5640, the Superfund Expansion and Protection Act of 1984," best describes the detrimental effect that such a taxing provision would have on the U.S. zinc industry as well as on many other U.S. industries. The quotation continues:

> The Energy and Commerce Committee has recommended an amendment which would impose a 5-percent tax on the landed value of chemical imports "directly and substantially manufactured or produced from" taxable feedstocks. Such an import tax would tend to protect the domestic market, for products produced from taxed feedstocks, from competition with untaxed imports.
>
> However, there are a number of disadvantages. First, the taxation of imported products which are not directly taxed in the United States may violate the General Agreement on Tariffs and Trade [GATT], since the 5-percent rate exceeds the effective tax rate on domestically produced chemical products.
>
> Second, the administration of such a tax would be extremely complex since there are literally thousands of chemical compounds which are derived from taxable feedstocks. There is considerable uncertainty as to the number and identity of the imported products which, under regulations, ultimately would be subject to this tax. The administrative burdens on the Internal Revenue Service would be further complicated by a provision which would allow importers to pay the feedstock tax that theoretically would be incurred in the United States, in lieu of the 5-percent landed value tax. This provision was added to enhance the amendment's conformity with the GATT code.
>
> Finally, since foreign manufacturers of chemical imports did not generate the wastes found in U.S. disposal sites, it is difficult to argue that they should pay to clean them up.

We respectfully request this committee not to adopt the Energy and Commerce Committee's import tax recommendation to amend H.R. 5640 due to the dire economic consequences the amendment would have on the zinc industry and many other U.S. industries.

The addition of a $14.94-per-ton tax on zinc could inhibit the zinc industry from realizing a successful recovery. It would mean more revenues for the cleanup of hazardous wastesites. However, the increased price of zinc would force further reliance on plastics, with their disposal problem, as a substitute material. This would result in the defeat of the purpose of the Superfund bill since it would encourage the creation of more hazardous waste.

By investing in new technologies and in costly marketing programs to develop new applications for the use of zinc, many independent zinc alloyers have helped zinc recover some of the U.S. market. My own company, Eastern Alloys, has invested heavily in these programs.

The U.S. zinc industry is still looking for its first 1 million ton a year in this decade. An additional tax on our industry could destroy our investments.

Closely related to the economic disadvantage that a cent per pound would create if H.R. 5640 is enacted in its present form is the marketing disadvantage that would be created if zinc is brought under the hazardous substance umbrella of Superfund and declared toxic.

If zinc is declared hazardous in the Superfund bill, consumers will not be as ready to buy consumer products containing zinc, such as eyeglass frames.

Where an industry loses its competitive advantage, whether due to a tax, a duty, or being misrepresented in the marketplace, it hurts small businessmen like the independent zinc ⅛alloyers and, therefore, forces them to lay off workers.

Congress has not, in prior environmental legislation, concluded that all zinc is environmentally hazardous.

In 1980, zinc, except for three specific zinc compounds, was excluded from the Superfund tax and we urge this committee to exclude it again. No environmental legislation has been enacted by Congress since 1980 that supports the taxing of all zinc as a hazardous substance for Superfund reauthorization purposes.

There is no justification for altering that congressional judgment and intent. As in 1980, there is no reason to blanket zinc into the Superfund tax and no reason to tax all of it.

Thank you for the opportunity to present this testimony.

[The prepared statement follows:]

STATEMENT OF R.J. BAUER, CHAIRMAN, WASHINGTON CONFERENCE FOR ZINC, INC.

I am R.J. Bauer, President of Eastern Alloys, Maybrook, New York, Chairman of the Washington Conference for Zinc, Inc., with offices at 900 17th Street, N.W., Suite 504, Washington, D.C. 20006.

The Washington Conference for Zinc grew out of a meeting in Washington on the Superfund reauthorization legislation. Attending the meeting were representatives of many segments of the zinc industry, including U.S. and foreign producers, independent alloyers, trading companies, and hot dip galvanizers. The industry was briefed by House and Senate staff personnel on the inclusion of zinc in both the "Feedstock" and "Waste-end" provisions of H.R. 5640.

Zinc is an essential and versatile mineral, ranking fourth in metal production following steel, copper and aluminum. The zinc industry exerts worldwide influence in mining, smelting and trade.

Zinc industry operations consist of much more than extraction of the mineral from the ground. Production, alloying, die casting, brass and bronze production and galvanizing are the major segments of the zinc metal industry, each providing employment for thousands of Americans as well as consumer items ranging from eyeglass frames to fire hose couplings, carburetors and computer components.

Zinc has no known adverse physiological effects upon man except at very high concentrations.[1] In fact, zinc is an essential mineral for the growth and development of almost all life, from microorganism to man. Man's estimated daily intake of zinc is about 10–15 mg, close to the U.S. recommended daily allowance of 15 mg.

---

[1] McKee, J.E. and H.W. Wolf, "Water Quality Criteria," California Water Pollution Control Board, Publication 3-A, pp. 294-298.

The Washington Conference for Zinc understands that one of the purposes of H.R. 5640 is to broaden the Superfund tax base and to increase the amount of revenues to clean up hazardous waste sites. This is why the Energy and Commerce Committee has recommended to you that zinc be included within the Superfund bill.

However, we urge this Committee to exclude zinc from that broadened tax base because zinc in all its forms is not a contributor to the hazardous waste site problem. We firmly believe that the zinc industry should not be subjected to a tax that would be punitive in nature.

I would like to described the alloying industry and its process to illustrate how crippling a $14.94 per ton tax would be to the zinc industry.

Alloyers supply the casting and forging industries who produce components for automobiles, builder's hardware, electric utilities, electronic products, and hundreds of other consumer items.

Independent zinc alloyers are a channel of distribution for approximately a quarter of a million tons of zinc per year. The independent alloyers, virtually all of which are family founded, owned and operated, operate on a narrow profit margin.

In order to produce a specific alloy requested by an alloyer's customer, the alloyer must buy the most expensive grade of zinc, known in the industry as special high grade zinc. It is then mixed with alloying materials, tested with the best technology available to meet specification requirements, and then shipped to their customers, members of the casting and foundry industries.

Alloyers do not realize a large profit on each ton of alloy we ship because our customers too are small businesses that comprise the zinc die casting industry. We extend credit on very generous terms, ship small loads, and many alloying companies, like my firm, provide technical services and support for die casters.

A $14.94 per ton tax would detrimentally effect this delicate infrastructure. The $14.94 per ton tax would be passed on from the producer to the alloyer to the die caster and ultimately to the consumer.

The tax would amount to an additional cost of a penny per pound for zinc alloy. A pound of alloy currently sells for approximately 56 cents. An additional penny in an item that sells for 56 cents can be critical to sales and to profits in an industry that is struggling to recover and regain its market. We are still engaged in severe market competition with the plastics industry.

We recently requested the Trade Subcommittee of this Committee to suspend the 1.7% ad valorem duty on slab zinc because U.S. producers can provide only 30% of the current domestic zinc requirements. In fact, U.S. producers have enough zinc for only a small number of U.S. zinc alloyers, and we have to rely on imports for 90% of our raw material, special high grade zinc.

It was not our intention to harm the few remaining U.S. producers, but as the price of zinc began to rise during the recent economic recovery, we wanted to avoid paying an additional one cent per pound for 90% of our raw material which we must import from Canada, Mexico, Australia, Peru, European nations and other overseas sources.

We needed and still need this margin to remain competitive. We certainly do not need the additional cost of at least a cent per pound that would be added if H.R. 5640 is enacted in its current form.

The Washington Conference for Zinc also is gravely concerned with a recommendation of the Energy and Commerce Committee on H.R. 5640 to impose a new five percent tax on the landed value of certain taxable substances imported into the U.S. A taxable substance for the purpose of this tax would be any substance immediately derived from a taxable chemical listed in the table under Section 4661.

The language of the recommendation is vague, ambiguous and confusing.

The Joint Committee on Taxation, in its report, "Back-ground and Issues Relating to H.R. 5640, the Superfund Expansion and Protection Act of 1984," best describes the detrimental effect that such a taxing provision would have on the U.S. zinc industry as well as on many other U.S. industries:

"The Energy and Commerce Committee has recommended an amendment which would impose a 5-percent tax on the landed value of chemical imports' directly and substantially manufactured or produced from' taxable feedstocks. Such an import tax would tend to protect the domestic market, for products produced from taxed feedstocks, from competition with untaxed imports. However, there are a number of disadvantages. First, the taxation of imported products which are not directly taxed in the United States may violate the General Agreement on Tariffs and Trade (GATT), since the 5-percent rate exceeds the effective tax rate on domestically produced chemical products. Second, the administration of such a tax would be extremely complex since there are literally thousands of chemical compounds which are derived from taxable feedstocks. There is considerable uncertainty as to the number and indentity of the imported products which, under regulations, ultimately would be subject to this tax. The administrative burden on the Internal Revenue Service would be further complicated by a provision which would allow importers to pay the feedstock tax that theoretically would be incurred in the United States, in lieu of the 5-percent landed value tax. (This provision was added to enhance the amendment's conformity with the GATT Code.)

Finally, since foreign manufacturers of chemical imports did not generate the wastes found in U.S. disposal sites, it is difficult to argue that they should pay to clean them up.[2]

Further, in the comments following the import tax recommendation in the Energy and Commerce Committee's report on H.R. 5640, the report states: "The Committee recognizes that the import tax amendment may raise significant issues both of administerability and equity, and of course, that any such tax must comply with the General Agreement on Tariffs and Trade . . . While recognizing that the amendment in its current form may need revision and refinement, the Committee is committed to seek an additional taxing mechanism to ensure an equitable international marketplace."[3]

We respectfully request this Committee to not adopt the Energy and Commerce Committee's import tax recommendation to amend H.R. 5640 due to the dire economic consequences the amendment would have on the zinc industry and many other U.S. industries.

Since 1974, the U.S. industry has lost a large portion of its market. There are two major reasons for this loss.

First, to conserve energy, automotive industry engineers substituted the use of lighter materials for zinc in the design of cars. In the 1960's and the early 1970's, the automotive industry was the major consumer of zinc in the U.S. In 1975, the average new car contained approximately 61.7 pounds of zinc per new car; in 1978, the average new car contained only 36.5 pounds of zinc.

Because the automotive industry is considered a pace-setting industry, other consumer product industries followed the automotive industry's lead and replaced zinc with substitute materials. The result was devastating to the U.S. zinc industry. A drop in the consumption of zinc in the U.S. from a high of over 1,500,000 tons in 1973 to a low of approximately 800,000 tons in 1983 occurred. The lower consumption levels led to the closing of several zinc producing plants in the U.S.

A second reason for the decline of the U.S. industry was the loss of a large portion of its market to the plastics industry. Because the zinc industry did not then have a comprehensive marketing program, the plastics industry succeeded in the early 1970's in substituting plastics for zinc in the design of many consumer products.

However, what many failed to realize was that although plastics were lighter and cheaper, plastics feedstock disposal has a high toxicity level, Many plastics are not biodegradable, are not easily disposed of, and become toxic when they are burned.

The addition of a $14.94 per ton tax on zinc could inhibit the zinc industry from realizing a successful recovery. It would mean more revenues for the cleanup of hazardous waste sites. However, the increased price of zinc would force further reliance on plastics (with their disposal problems) as a substitute material. This would result in the defeat of the purpose of the Superfund bill since it would encourage the creation of more hazardous waste.

By investing in new technologies and in costly marketing programs to develop new applications for the use of zinc, many independent zinc alloyers have helped zinc recover some of the U.S. market. My own company, Eastern Alloys, has invested heavily in these programs.

The U.S. zinc industry is still looking for its first one-million-ton year in this decade. An additional tax on our industry could destroy our investments.

Closely related to the economic disadvantage that a cent per pound would create if H.R. 5640 is enacted in its present form is the marketing disadvantage that would be created if zinc is brought under the "hazardous substance" umbrella of Superfund and declared toxic.

If zinc is declared hazardous in the Superfund bill, consumers will not be as ready to buy consumer products containing zinc, such as eyeglass frames.

---

[2] "Background and Issues Relating to H.R. 5640, the Superfund expansion and Protection Act of 1984," prepared by the staff of the Joint Committee on Taxation, July 23, 1984, JCS-27-84, pp. 35-36.

[3] House Report 98-890, part I, p. 121.

Where an industry loses its competitive advantage, whether due to a tax, a duty, or being misrepresented in the marketplace, it hurts small businessmen like the independent zinc alloyers and therefore forces them to lay off workers.

The Energy and Commerce Committee, in its report on H.R. 5640 (House Report No. 98-890, Part I), comments that the "new substances subject to taxation were selected on the basis of the criteria used for selection provided in current law, plus some additional criteria developed in consultation with EPA."

The Washington Conference for Zinc believes that the new set of criteria used to include all zinc forms in the current bill results from a study still in draft form prepared for EPA pursuant to Section 301(A)(1)(H) of the 1980 Superfund Act.[4] The data in the EPA study is neither sufficient nor specific enough to justify including zinc under the "hazardous substance" umbrella of Superfund. The study relies upon a finding of some unidentified forms of zinc at numerous waste sites and does not indicate the amounts of zinc or the forms of zinc compounds found at waste sites.

Congress has not, in prior environmental legislation, concluded that all zinc is enviromentally hazardous.

In 1980, zinc, except for three specific zinc compounds, was excluded from the Superfund tax and we urge this Committee to exclude it again. No environmental legislation has been enacted by Congress since 1980 that supports the taxing of all zinc as a hazardous substance for Superfund reauthorization purposes.

There is no justification for altering that Congressional judgment and intent. As in 1980, there is no reason to blanket zinc into the Superfund tax and no reason to tax all of it.

Thank you for the opportunity to present this testimony.

Mr. GIBBONS. Thank you, sir.

We thank all the panel for coming and for waiting so patiently and presenting your cases.

I don't have any questions.

Mr. CONABLE. Does the gentleman from Baton Rouge have some?

Mr. MOORE. Yes, Mr. Chairman.

Mr. GIBBONS. All right, go ahead.

Mr. MOORE. I want to thank my constituent, Mr. Taylor, for being here. His company is one of the few manufacturers in our State other than petrochemicals, and we want to keep him in business. And I appreciate him being here and helping us.

What percent of the value of the battery is the lead, what part of the value?

Mr. TAYLOR. It would be hard to say, Mr. Moore, without knowing specifically what battery you have in mind. Generally, it would be from 50 to 75 percent of the——

Mr. MOORE. Of the cost of the battery?

Mr. TAYLOR. Of the total raw material cost.

Mr. MOORE. That is important to us. If we have an import tax, we have to have a demarcation of when you get de minimis and when you get substantial. I just wanted that in the record about batteries.

Thank you.

Mr. Bard and Mr. Bauer, I have a hard time, as members of the committee have had, in trying to understand why it is that copper oxides are taxed and copper is not—zinc, aluminum, and lead are taxed. Yet we don't go to the oxides which are the toxic substances.

Would you agree, or do you think we should move away from the tax on the basic metal and move instead to a tax on the compound that, in fact, is toxic?

---

[4] "Analysis of Substances Exempt from CERCLA Tax Pursuant to 301(A)(1)(H) and Analysis of a Tax on Coal-Derived Substances and Recycled Metals Pursuant to 301(A)(1)(L)," prepared for Office of Emergency and Remedial Response, U.S. Environmental Protection Agency by ICF Inc., November 1983.

Mr. Bauer. Yes, I do, sir.

Mr. Moore. Yes.

Mr. Bard. We agree, the toxic materials ought to be taxed.

Mr. Moore. And we would tax all of them, the copper and iron which are now, you are trying to compete with and having a difficult time competing with. Can you do that—I am not a chemist or metallurgist. Can we identify these compounds and spell them out, like this bill has done, for chemicals and metals that should be taxed?

Mr. Bard. The only two we have seen listed so far are the aluminum sulfate and aluminum phosphide. Of course, the amount of aluminum or alumina, the aluminum oxide that is part of that, is very small.

But to whatever extent that the compounds contribute to toxic waste, they should be taxed.

Mr. Moore. Mr. Bauer, I have a question. Certain import fees, on page 77 you urge us not to adopt that fee, an import tax recommendation, due to the dire economic consequences the amendment would have on the zinc industry and many other U.S. industries.

On the preceding page where you spell out what your concerns are about an import tax, and I agree with you, these are all valid concerns we have to be very serious about, none of them touch on that statement.

Could you explain that statement, why the import fee would have dire economic consequences on the zinc industry and many other U.S. industries?

Mr. Bauer. Because adding that amount of money to the top of our present cost structure, which is a very fragile thing to begin with, would make our products less competitive and, therefore, our customers' products less competitive in the marketplace in which they compete against many other materials.

I was trying to make the point of an economic burden, as well as later on that zinc shouldn't be in there because it is not a toxic material.

Mr. Moore. I am missing a point. I think it is beginning to dawn on me. I take it all zinc in this country is imported?

Mr. Bauer. No, sir. I would say that roughly two-thirds of the slab zinc consumed in the United States is imported.

Mr. Moore. So that is where you get this problem you are talking about.

Mr. Bauer. Yes.

Mr. Moore. If the tax is put on you, it would make your zinc product even more uncompetitive with plastic products and metal alloys you currently compete with.

Mr. Conable. He mentioned that he has a bill pending before the Trade Subcommittee, if the gentleman will yield, to eliminate duty on zinc.

Mr. Moore. Likewise, if we moved away from a tax on the basic metal zinc, and instead to the toxic compounds, if there are any, that would solve the problem, the import fee wouldn't affect you?

Mr. Bauer. That is right.

Mr. Moore. Thank you very much.

Thank you, Mr. Chairman.

Mr. **Gibbons**. Could you explain to me the rationale for putting zinc in here at $14.94 a ton and dropping zinc chloride and sinking sulfate?

Mr. **Bauer**. I have no idea how that was arrived at.

Mr. **Gibbons**. Does it make any sense?

Mr. **Bauer**. No.

Mr. **Gibbons**. OK.

Mr. **Moore**. Mr. Chairman, the real mean one is to ask why copper was excluded?

Mr. **Conable**. That has been asked several times today.

Mr. **Moore**. That is the one that smells of politics.

Mr. **Gibbons**. I think I understand why they did that, why they left copper out of here.

Mr. **Bauer**. I might add, Mr. Chairman, if I may make the comment, that the official vitamin for the Olympic team—I happened to be vacationing up in Nantucket last weekend, and I heard a Boston radio station was running an advertisement of a major vitamin company showing athletes running along the road and saying "What is more important to him than the gold medal?" They say, "That is the zinc in his vitamin." Then came the ad that this is the official vitamin with the heavy zinc supplement in it.

So when you ask a question, how zinc got into the Superfund when we advertise that we need it in animal feedstocks, in human life, and so on, I don't know how it could get in there.

Mr. **Gibbons**. Well, we appreciate your appearance. Thank you very much. We will try to make some sense out of this bill yet.

El Paso Products Co., LTV Steel Corp. and Cadence Chemical Resources, Synthetic Organic Chemical Manufacturers Association, Secondary Lead Smelters Association, and AMAX, Inc.

Mr. Woodruff, I thought you said you would be on early in the afternoon?

Mr. **Woodruff**. I thought I was.

Mr. **Gibbons**. I thought so too.

Let's go with Mr. Read first.

Mr. **Conable**. Actually that is the only reason Sam stayed.

STATEMENT OF G.W. READ, TAX OFFICER AND DIRECTOR OF TAXES, EL PASO PRODUCTS CO.

Mr. **Read**. Mr. Chairman, my name is G.W. Read. I am tax officer and director of corporate taxes for El Paso Products Co. I am here today on behalf of and representing El Paso Products Co. We appreciate the opportunity to present testimony before this committee.

I am also here today to ask you not to close us down. We are a small employee-owned company. We manufacture plastic film, ethylene, propylene, styrene, polyethlene, polypropylene, and butadiene. This company and the chemicals and plastics business was purchased from the El Paso Co. in December 1983. The current El Paso Products Co. is no longer part of the Burlington/El Paso conglomerate group, but a small employee-owned company. However, the key to this equation of business success is the ability to guide your own destiny.

The management group that purchased this business in December 1983 presented forecasted and projected income statements to the banks to justify their ability to repay the loans for the purchase of the business. The management team was confident they could achieve the forecasted results as long as they could have control of the business. One of the plants in the previously mentioned financial statements presented to our lenders is a butadiene plant. Even with all of the cost reduction programs in effect, the projected income for the current year is $879,000 before taxes. If the proposed bill—H.R. 5640—becomes law, this plant will have added expenses of $1,741,000 annually, changing the projected income of $879,000 to a loss of $862,000. Mr. Chairman, we cannot cut any more expenses at this plant without shutting it down and ceasing operations. Needless to say, we cannot pay off a loan with losses or shut down plants. We also have other plants in similar situations that use and manufacture ethylene, propylene and other H.R. 5640 listed chemicals.

During markup, June 20, 1984, by the House Committee on Energy and Commerce, Congressman Tauzin introduced an amendment to H.R. 5640 which would reduce the tax on certain listed chemical feedstocks. In supporting the Tauzin amendment, Congressman Fields emphasized that in the last 2 years 50,000 jobs have been lost in the petrochemical industry. Both Congressmen stated that imposition of the proposed increases in tax on certain listed substances would virtually destroy small refineries which would experience exorbitant tax increases.

Let me say this destruction will also apply to El Paso Products Co. If this committee wants to shut down El Paso Products Co. and add 1,200 more jobless workers to that number, you may well succeed by passage of H.R. 5640 with its exorbitant tax on feedstocks.

Mr. Chairman, let me assure you and the committee that when other large integrated and diversified producers and manufacturers in their testimony say it is unrealistic for their chemical operations to be expected to continue to operate and generate losses when they have other profitable operations to offset such losses, it is truly unrealistic to think the small chemical producers and manufacturers, such as employee-owned El Paso Products Co., can survive when this is their only operation.

We will not survive. We are not totally against environmental taxes and controls on disposal of hazardous waste chemicals. We do support and will continue to support legislation and environmental laws which are prudent and penalize those who haphazardly dispose of hazardous waste chemicals which pollute our environment and jeopardize the health of the American public.

However, we are strongly opposed to any legislation which would penalize American business for purchasing and manufacturing a basic product used in so many things, from bread wrappers to automobile parts, and close down legitimate business for the acts of a few.

Why not put the burden directly where it belongs, on the waste end and disposer? Small companies, like ours, are not price setters. We cannot pass on all these costs to our customers. Our operations are working on a very thin margin and if this tax passes, some of the plants will shut down, and the effect could mean the survival of this company and 1,200 employees' futures.

We and others have tried very hard to succeed in our endeavors and attempts to save jobs and be good corporate citizens. We ask your support in this endeavor to save jobs and keep our American industry competitive in the world market. Design and pass legislation which will not burden legitimate business but will appropriately penalize those who do wrong. Put the tax where it belongs, on the waste end and disposer. Don't impose undue taxes on our chemical feedstocks and close down El Paso Products Co. and other small businesses.

I thank you, and a more detailed statement has been provided for the printed record.

[The prepared statement follows:]

STATEMENT OF EL PASO PRODUCTS CO., PRESENTED BY G.W. READ, TAX OFFICER AND DIRECTOR OF TAXES

My name is G.W. Read. I am tax officer and director of corporate taxes for El Paso Products Company. I am here today on behalf of and representing El Paso Products Company. We appreciate the opportunity to present testimony before this committee. A brief history of our company is in order to set the stage for our concerns and reasons for being here today.

El Paso Products Company was organized in 1957 as a wholly owned subsidiary of El Paso Natural Gas Company. Over the years El Paso Products has been in the petrochemical, natural gas liquids, refinery and oil and gas production business. For the last several years, being and concentrating only in the petrochemical business. We have plants located in Delaware, Wisconsin, Texas and California. We manufacture plastic film, ethylene, propylene, styrene, polyethylene, polypropylene and butadiene.

During the last of December 1982, Burlington Northern made a tender offer for the El Paso Company, the parent holding company of El Paso Natural Gas Company and El Paso Products Company. Shortly thereafter the El Paso Products Company Senior officers were advised that the chemicals and plastics business did not fit into the El Paso Company's long term plans and would be sold if possible. During the preceeding 18 month period the chemical segment had experienced large book losses (approximately $55 MM). Two investment banking firms—Merrill Lynch and Lehman Brothers Kuhn Loeb were employed to sell the business. Late in July 1983 the chief executive officer (CEO) of the El Paso Company informed Mr. W.D. Noel, ex-president and chairman of the board for El Paso Products Company (retired in 1980) that he seriously doubted that the holding company would be successful in finding a suitable buyer for the chemical and plastics business and asked Mr. Noel whether he had any interest in heading a group of El Paso Products Company officers that had an interest in keeping the business in operation. The El Paso Company CEO was asked what the El Paso Company planned to do if no suitable buyer was found. He stated that the El Paso Company was prepared to shut the operations down, write them off the books, issue final checks to the employees and lock the gates. Mr. Noel and the rest of the El Paso Products Company current management group decided, for the sake of the employees and communities where our facilities are located, that there should be an attempt to save the business. It was recognized that it would be no small task to save a business that had sustained a $42 million book loss in 1982 and had already lost $13 million in the first six months of 1983. (The 1983 book loss for the entire year was $25 million.) Major cost reductions were initiated.

In December 1983 the management group consumated the acquisition of the chemicals and plastics business from the El Paso Company, the purchase price was 210 million dollars. El Paso was paid $70 million cash which was borrowed from Chase Manhattan and Texas Commerce banks. The balance of $140 million is payable over the next ten years, at $14 million per year.

With this background you can now better understand the many problems this bill creates. The current El Paso Products Company is no longer part of the Burlington/El Paso conglomerate group but a small employee owned company. However, the key to this equation of business success is the ability to guide your own destiny. The management group that purchased this business went to the banks and presented forecasted and projected income statements to justify their ability to repay the loans for the purchase of the business. As I previously stated, they initiated major cost reduction programs which were included in the forecasted financial statements. The management team was confident they could achieve the forecasted results as long as they could have control of the business.

One of the plants in the previously mentioned financial statements presented to our lenders is a butadiene plant. Even with all of the cost reduction programs in effect, the projected income for the current year is $879,000 before taxes. If the proposed bill (H.R. 5640) becomes law this plant will have added expenses of $1,741,000 annually, changing the projected income of $879,000 to a loss of $862,000. Gentlemen, we cannot cut any more expenses at this plant without shutting it down and ceasing operations. Needless to say, we cannot pay off a loan with losses or shut down plants. We also have other plants in similar situations that use and manufacture ethylene, propylene, styrene and use other H.R. 5640 listed chemicals.

We are not alone in this endeavor. We understand that several other major companies have sold off all or a portion of their chemical operations, some of which have been bought by enthusiastic entrepreneural individuals. Others have just been shut down. These include but are not limited to: Cities Service, Diamond Shamrock, Gulf, Tenneco and Conoco.

During mark up, June 20, 1984 by the House Committee on Energy and Commerce, Congressman Tauzin introduced an amendment to H.R. 5640 which would reduce the tax on certain listed chemical feedstocks. In supporting the Tauzin amendment, Congressman Fields emphasized that in the last two years 50,000 jobs have been lost in the petrochemical industry. Both Congressmen stated that imposition of the proposed increases in tax on certain listed substances would virtually destroy small refineries which would experience exorbitant tax increases. Let me say this will also apply to Small petrochemical manufacturers such as El Paso Products Company. If this committee wants to shut down El Paso Products Company and the small chemical business operations in the U.S., you may well succeed by passage of H.R. 5640 with its exorbitant tax on feedstocks. The 50,000 lost jobs referred to may only be the tip of an iceberg. This is supported by Harold A. Sorgenti, Arco senior vice president and president of Arco Chemical Company in his testimony before the Senate Environment and Public Works Committee May 23, 1984. I would like to quote from the Bureau of National Affairs, Inc. (BNA) May 31, report of Mr. Sorgenti's testimony.

. . . (he) indicated that companies paying the bulk of the superfund's tax on chemical ingredients may close down their petrochemical operations if the tax is increased greatly.

Sorgenti told the panel that only 12 companies pay almost 70 percent of the current $1.6 billion superfund tax, and petrochemical manufacturing consitutes only a portion of their business.

While these companies are profitable overall, it is "unrealistic" to expect them to continue to manufacture petrochemicals "when these operations can only be expected to continue to generate continuing losses, and are not essential to the companies' overall viability," Sorgenti told the panel.

Superfund reauthorizing legislation being considered in the House would increase tax rates between 300 and 600 percent for producers of the 11 chemical feedstocks which are currently subject to the superfund tax, Sorgenti said.

The Arco official was referring to H.R. 5640, a bill to reauthorize the Superfund law, which was approved May 23 by the House Energy and Commerce subcommittee on Commerce, Transportation, and Tourism. The bill would increase the current $1.6 billion fund to $9 billion over five years, with the bulk of the increase derived from an expanded tax on chemical feedstocks.

"The legislation's sponsors have apparently assumed that the petrochemical industry can continue to bear approximately two-thirds of an expanded annual revenue objective of $1.5 billion or so. Unfortunately, that assumption is erroneous," he said.

Profit margins are down in the chemical industry, which operated at a loss in 1982 and 1983, Sorgenti said. Further, the Superfund tax, which applies only to domestic production, will undercut the U.S. chemical industry's position in world markets, he said.

Gentlemen, let me assure you that when such large integrated and diversified producers and manufacturers as Arco say it is "unrealistic" for their chemical operations to be expected to continue to operate and generate losses when they have other profitable operations to offset such losses, it is truly unrealistic to think the small chemical producers and manufacturers such as employee owned El Paso Products Company can survive when this is their only operation.

Even if the large manufacturers survive the proposed tax increases and manage to offset chemical losses with profits from other operations, we question the inflationary impact which results from the compounding and additive effect of such price increases by primary industries being passed on through various value-added manufacturing steps. This Nation cannot stand another spiral of uncontrolled inflation.

We are not totally against environmental taxes and controls on disposal of hazardous waste chemicals. We do support and will continue to support legislation and environmental laws which are prudent and penalize those who would haphazardly dispose of hazardous waste chemicals which pollute our environment and jeopardize the health of the American public. However we are strongly opposed to any legislation which would penalize American business for purchasing and manufacturing a basic product used in so many things from bread wrappers to automobile parts and close down legitimate business for the acts of a few. Why not put the burden directly where it belongs? On the waste end and the disposer.

Foreign competition on our finished products is already so great as to cause many companies to shut down and close up their operations as a result of subsidies by foreign governments. It is ironic that foreign governments appear to subsidize certain foreign manufacturing processes exporting their country's products, while ours penalizes through unnecessary tax burdens. Then our government wonders why our balance of payments get out of line and U.S. industry is unable to compete in world markets. It should be noted that the chemical industry is one of the very few that has, over the last several years contributed a positive balance of payments. If you tax us so as to make us unable to compete world wide, you know what the results will be. Not only will the balance of payments reverse for the chemical industry, but you will have succeeded in closing up and shutting down many small companies as well as some large companies' operations and created jobless workers. We are not so sure you may not also cause the few remaining majors to cease operations.

Small companies like our are not price setters and we cannot pass on all of these costs to our customers. Our operations are working on a very thin margin and if this tax passes, some of our plants will shut down and the effect could very well mean the survival of this company and 1,200 employees' future. We and others have tried very hard to succeed in our endeavors and attempts to save jobs and be good corporate citizens. We ask your support in this endeavor to save jobs and keep our American industry competitive in world markets. Design and pass legislation which will not burden legitimate business but will appropriate penalize those who do wrong. Put the tax where it belongs, on the waste end and disposer. Don't impose undue taxes on our chemical feedstocks and close down El Paso Products Company and other small businesses.

Mr. GIBBONS. All your statements will be in the record. LTV Steel.

STATEMENT OF R. SARAH COMPTON, COUNSEL, LTV STEEL CORP. AND CADENCE CHEMICAL RESOURCES, INC.

Ms. COMPTON. Thank you, Mr. Chairman.

I want to thank the committee for the opportunity to appear today.

Mr. GIBBONS. Spend the day with us, yes.

Ms. COMPTON. Sorry, I did not spend the entire day here. I am still happy to testify. Thank you.

I am legal counsel to and am testifying on behalf of LTV Steel Corp. and Cadence Chemical Resources, Inc.

LTV is an integrated steel company headquartered in Cleveland, OH, with production facilities scattered throughout the United States. LTV reuses the Cadence product in its ironmaking blast furnaces. Cadence is a hazardous waste recycling company located in Michigan City, IN, that manufactures the Cadence product from hazardous waste feedstocks, including stillbottoms from recycling operations.

My purpose in testifying is to request that recycling and reuse activities be exempted from the hazardous waste-end tax proposed in H.R. 5640 because they are environmentally beneficial uses of hazardous waste.

If the House chooses to proceed with a waste-end tax, the tax should serve a dual purpose: One, to raise revenue for the Superfund which you have heard about, and two, to discourage land disposal sites and other environmentally harmful methods of hazardous waste disposal by increasing the costs of such disposal relative to environmentally beneficial uses of hazardous waste.

Recycling and reuse activities are legitimate alternatives to land disposal that benefit public health and the environment. Recycling and reuse, therefore, should not be burdened with the waste-end tax.

The effect of excluding recycling and reuse activities from the tax will be the creation of an economic incentive for hazardous waste generators to recycle and reuse waste rather than dispose of it on land and pay the waste-end tax.

This result is otherwise economically advantageous because resource values from hazardous waste are recovered for material use in industrial processes.

Recycling and reuse are environmentally beneficial because the volume of waste that must ultimately be disposed of is reduced, in many cases significantly.

The reuse of hazardous waste or products manufactured from hazardous waste in some processes has the additional positive environmental effect of transforming the waste chemically, physically, and biologically to render it nonhazardous.

For example, LTV uses a product developed by Cadence in LTV's ironmaking blast furnaces.

Cadence takes stillbottoms and processes and blends them with other hazardous wastes and produces what we call the Cadence product.

That Cadence product is then reused in the LTV blast furnaces for ironmaking for its carbon, hydrogen, and chlorine content. When the process is completed, there are no hazardous byproducts which result from the use of the Cadence product in the blast furnace.

LTV is reusing the Cadence product in such a way that it benefits iron production and eliminates the existence of a hazardous waste. Again, there is no hazardous waste byproduct from the ironmaking blast furnace.

We think this type of activity and this use of hazardous wastes should be encouraged and not discouraged. The way to encourage such activity is not to burden it with a waste-end tax, and to discourage land disposal by—I am not saying that you should impose a waste-end tax, but if you do that, the waste-end tax be imposed on environmentally unsound methods such as land disposal, and not on environmentally sound methods such as that used by LTV and Cadence.

I would like to comment on the history of the issue of recycling and reuse. In recent years, Congress has recognized that recyling and reuse technologies must be developed to protect public health and the environment.

I have cited several quotes in my written statement which I have submitted to the committee which references comments made by both EPA and Congress with regard to the benefits of recycling and reuse. We hope that the committee will recognize the benefits and exempt recycling and reuse from the waste-end tax.

We are here to explain the problem because there is a drafting problem with H.R. 5640. The waste-end tax provision imposes a tax on the disposal of hazardous substances including hazardous wastes. But then, the waste-end tax provision, as it is now written, exempts incineration from the waste-end tax.

Incineration, however, is not disposal. By calling incineration disposal, the waste-end tax provision thereby creates the inference that other treatment and other reuse of hazardous waste such as that done by LTV and Cadence is, in fact, disposal of a hazardous waste.

Accordingly we urge the committee to strike the exemption for incineration from the waste-end tax provision, thereby imposing the waste-end tax correctly only on the disposal of hazardous wastes.

Incidentally, by striking the incineration exemption, incinerators would still remain exempt as would other treatment and beneficial reuse and recycling.

Thank you.

[The prepared statement follows:]

STATEMENT OF R. SARAH COMPTON, COUNSEL, LTV STEEL CORP. AND CADENCE CHEMICAL RESOURCES, INC.

My names is R. Sarah Compton. I would like to thank Chairman Rostenkowski and the other members of the Committee for allowing me to appear today.

I am testifying on behalf of LTV Steel Corporation and Cadence Chemical Resources, Inc. LTV is an integrated steel company headquartered in Cleveland, Ohio, with production facilities scattered throughout the United States. LTV reuses the Cadence product in its iron-making blast furnaces. Cadence is a hazardous waste recycling company located in Michigan City, Indiana, that manufactures the Cadence product from hazardous waste feedstocks, including stillbottoms from recycling operations. My purpose in testifying is to request that recycling and reuse activities be exempted from the hazardous waste-end tax proposed in H.R. 5640 because they are environmentally beneficial uses of hazardous waste.

If the House chooses to adopt a waste-end tax, the tax should serve a dual purpose: (1) to raise revenue for the "Superfund" established to finance the clean-up of hazardous waste disposal sites that pose danger to public health or the environment and (2) to discourage land disposal sites and other environmentally harmful methods of hazardous waste disposal by increasing the costs of such disposal relative to environmentally beneficial uses of hazardous waste. Recycling and reuse activities are legitimate alternatives to land disposal that benefit public health and the environment. Recycling and reuse, therefore, should not be burdened with the waste-end tax.

The effect of excluding recycling and reuse activities from the tax will be the creation of an economic incentive for hazardous waste generators to recycle and reuse waste rather than dispose of it on land and pay the waste-end tax. This result is economically advantageous because resource values from hazardous waste are recovered for material use in industrial processes. Recycling is environmentally beneficial because the volume of waste that must ultimately be disposed of is reduced. The reuse of hazardous waste or products manufactured from hazardous waste in some processes has the additional positive environmental effect of transforming the waste chemically, physically or biologically to render it non-hazardous.

For example, LTV uses a product developed by Cadence in LTV's iron-making blast furnaces. Cadence manufactures its product from hydrocarbon-based hazardous waste feedstocks that would have to be disposed of if not used by Cadence. In its blast furnaces, LTV utilizes the Cadence product for its carbon, hydrogen and chloride raw material values. In the extremely high heat of the blast furnace—approximately 3,800°F—the feedstocks in the Cadence product break down into their carbon, hydrogen, chloride and other constituents. Any solid waste or by-product generated by the blast furnace is nonhazardous; similarly, air emissions are in compliance with all allowable discharge limits. LTV's use of the Cadence product in its blast furnance is an economically and environmentally beneficial use of substances that would otherwise probably be disposed of in potentially environmentally harmful land disposal sites. In 1983 alone, LTV purchased $6 million of the Cadence product for this purpose.

In recent years, Congress has recognized that recycling and reuse alternatives to the land disposal of hazardous waste must be developed to protect public health and the environment. In adopting amendments to RCRA in 1980, the House Committee on Interstate and Foreign Commerce stated that: "[t]he Committee strongly believes that recycling of hazardous waste is preferable to disposal." House Committee on Interstate and Foreign Commerce, Used Oil Recycling Act of 1980, H.R. Rep. No. 1415, 96th Cong. 2d Sess., reprinted in 1980 U.S. Cong. & Ad. News 4354, 4357. Rep. James Florio, one of the principal House sponsors of hazardous waste legislation, asserted in his opening statement on the 1983 House RCRA amendments that "[w]e must create incentives to shift disposal from the land to other technologies." 129 Cong. Rec. H 6500 (daily ed. August 4, 1983) (statement of Rep. Florio).

Further, the U.S. Environmental Protection Agency has displayed great concern over the environmental problems associated with land disposal and the need to develop alternative recycling and reuse technology. In 1983, EPA stated that "[t]he Agency . . . acknowledges a strong statutory policy to encourage recycling" 48 Fed. Reg. 14,471, 14,474 (April 4, 1983). On February 15, 1984 EPA wrote that the "regulation of hazardous waste land disposal must proceed from the assumption that hazardous waste constituents will eventually migrate into the environment . . . ." 49 Fed. Reg. 5,854. Accordingly, EPA is investigating recycling alternatives for land disposal and intends to ban and restrict certain types of land disposal of hazardous waste.

As presently drafted, the revised section 4681 of chapter 38 of the Internal Revenue Code in section 503(a) of H.R. 5640 imposes a tax on the "disposal" of any hazardous substance. Section 4683 incorporates by reference the definition of disposal found in section 1004(3) of the Resource Conservation and Recovery Act. 42 U.S.C. § 6903(3) (1982). In RCRA, disposal is defined as the discharge, dumping or placing of hazardous waste on land or in water in a manner that could lead to environment harm. Under this definition, recycling and reuse activities that do not involve placement or discharge in land disposal sites or in water, including LTV's reuse of the Cadence product, would be exempt from the waste-end tax.

Our concern, however, is that the inclusion of the incinerator exemption in the amendments to section 4682 to chapter 38 of the Internal Revenue Code could lead to the inference that all recycling and reuse activities are subject to the waste-end tax. Section 4682(1) incorrectly refers to incineration as "disposal." It then expressly exempts incinerators from the tax. Under the "disposal" definition in RCRA incorporated by section 4683, however, incineration is not disposal; instead, it qualifies as "treatment." 42 U.S.C. § 6903(34) (1982). The mischaracterization of incineration as disposal could be read to imply that other activities not falling within the RCRA definition, including recyclying and reuse, are also disposal. Because these activities, unlike incineration, are not expressly exempted, they could then be subject to the tax. Therefore, we request that the incinerator exemption be stricken from section 4682, which will clarify that recycling and reuse activities are exempt from the tax. We emphasize that incineration is not disposal under the RCRA definition expressly incorporated by these amendments; thus, even without the express exemption, incineration will not be subject to the tax.

If the Ways and Means Committee decides to adopt a waste-end tax, it should structure the tax to create economic incentives to encourage recycling and reuse. Sound environmental policy dictates that Congress support recycling and reuse activities. Striking the express incinerator exemption will clarify that recycling and reuse activities are excluded from the tax; importantly, incinerators will also remain exempt. The result will be an economic incentive for generators to recycle and reuse their waste, rather than dispose of it at hazardous waste disposal sites. As both Congress and EPA have recognized, land disposal is fraught with environmental problems. The encouragement of recycling and reuse caused by the exclusion of such activities from the waste-end tax will, therefore, advance the goal of the nation's hazardous waste legislation, the protection of human health and the environment from the adverse effects of hazardous waste.

Thank you.

Mr. GIBBONS. Thank you.

Mr. Lang.

STATEMENT OF RONALD A. LANG, EXECUTIVE DIRECTOR, SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION

Mr. **Lang**. Thank you, Mr. Chairman.

I am Ronald Lang and I am here today as executive director of the Synthetic Organic Chemical Manufacturers Association. We are a small trade association. The majority of our members are small organic chemical producers.

In view of the hour, I will not attempt to read my statement, but submit it for the record. I would, however, like to emphasize a couple of points from the statement.

The legislation you are considering today is going to have a very major impact, not just on the big chemical companies and petroleum companies you have heard from today, but on hundreds of small chemical manufacturers and literally tens of thousands of small chemical users throughout the United States.

We have great concerns with the legislation, not so much in terms of the importance of cleaning up the toxic dump sites in this country, because we are in full support of extending Superfund, identifying those sites which are hazards and in cleaning them up. But we are concerned that a $9 billion revenue bill which has very, very major implications for many of my companies, and those other thousands of users, is going to be moved on a very short and quick time framework.

We understand you are looking at markup a week from now. In the hearing today, and I have sat through most of it, and admire your perseverance, a lot of very, very difficult and complicated questions have been raised.

How much money is actually needed, or how much usefully can be spent, $5 billion or $9 billion or $13 billion or $40 billion? How well has the feedstock tax worked in the last couple of years, and how has it related to the hazardous wastes being found?

What effect has that tax had on trade? The chemical trade balance is down by billions of dollars since that tax was put into place. What will be the trade impact now that you are looking to expand it significantly beyond the feedstock tax to those thousands of companies I mentioned.

There have been mathematical errors and serious questions about whether some chemicals or metals really belong on the list.

These are tough questions. I believe they deserve much more careful thought and consideration.

You have a report coming out of the Government in less than 2 months which will provide at least some tentative answers to many of these questions, and we have a law that runs for more than a year longer—why rush?

We don't have specific suggestions with respect to the taxing provisions of the bill. What I am trying to highlight is the fact that this bill will impact thousands of companies across the country and that most of those companies don't have the option raised today to say OK, this tax system is going to cause us to lose money in one part of our operation, but we will make it up in other operations.

It is all or nothing for some of those companies. I urge you to proceed with care, because the bill could impact many companies in this country. We will work with the committee in any way we can.

I would like to comment on two other points that affect us directly. One is the waste end tax. My small companies are not now subject to the feedstock tax, except indirectly. They have signed on to the waste end tax, even though no one likes another tax. But they accept the concept that the generators of toxic waste ought to pay their fair share to clean up the sites, so our people have said, OK, we will get behind the tax.

However, we have problems with the way the tax is structured in the present bill. We are concerned with respect to applying that tax on a "wet" basis. I think the first witness today was questioned by Mr. Thomas, where he kiddingly talked about taxing "oxygenated hydrogen". That's what this proposal would do.

When you tax on a wet basis, you are applying that per ton tax to the water content of the waste and we have fundamental difficulties with the justice of that. We think the committee should look at the question of whether it is equitable to pay that tax on a wet basis, rather than on the hazardous material itself.

It affects us in competition with larger companies, because they can take steps to lessen their tax burden. We think you should look at a dry weight basis.

The legislation, talks about collecting that waste end tax from disposers as opposed to generators, but it isn't too clear exactly how that would work. Again, we are looking potentially at tax forms for tens of thousands of companies around the country and we think it makes sense to collect the money from the disposal sites, and they will pass it along back to the generators. I think it will simplify the process for the small businesses and for the Internal Revenue Service.

Let me close, Mr. Chairman, by simply saying we are very much concerned with the effect this bill will have on our members and their customers and their customers' customers.

We urge the committee to take care to try to resolve some of the difficult questions and problems raised in today's hearing before you move forward with approving a bill of this magnitude.

[The prepared statement follows:]

STATEMENT OF RONALD A. LANG, EXECUTIVE DIRECTOR, SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION

Mr. Chairman and members of the Committee, I am Ronald A. Lang and I am appearing here today as Executive Director of the Synthetic Organic Chemical Manufacturers Association.

SOCMA is a non-profit trade association with approximately 100 members manufacturing organic chemicals in the United States. Over half of these companies are considered small companies with annual chemical sales under $50 million. They produce a wide variety of synthetic organic chemical products which are essential to virtually every other major American industry and are responsible for much of the innovation in the industry today.

I appreciate the opportunity to appear before the Committee this afternoon to discuss some of the very serious concerns our members have with the tax aspects of the proposed Superfund legislation. The issues I will be commenting on in the next few minutes reflect the concerns not only of SOCMA's smaller member companies but also other small companies which do not belong to our association, thousands of chemical processors throughout the United States and literally tens of thousands of organic chemical users who would be impacted by the proposed Superfund reauthorization.

Let me begin by emphasizing that our association, which has both large and small companies as members, strongly supports the need for a continuation of Superfund beyond its 1985 expiration. We are committed, both individually and as an organization, to identifying abandoned dump sites which pose hazards to human health or the environment and to working with government in finding ways to clean up those sites.

Our members, the vast majority of which do not directly pay the present feedstock tax, have accepted the concept that today's generators of hazardous waste should contribute their fair share towards clean-up of these old sites—the so-called waste end tax.

Unfortunately, we have some very significant problems with the proposed legislation under consideration by this Committee and, as importantly, with the apparent lack of careful thought which went into the tax aspects of that legislation. These concerns center on several areas which are separate, but interrelated.

First, the taxing provisions of H.R. 5640 will have significant adverse effects on international trade in chemicals by making imports from abroad not subject to the tax cheaper in relation to American manufactured products. In short, the bill is not trade-neutral in its effect and has the potential to impose hardship on smaller firms which are already experiencing substantial price competition from imports due to the strong dollar. It will also adversely affect exports of smaller companies. These effects are important for the Committee to consider since the chemical industry contributes significantly to America's trade balance.

I raise this issue of foreign competition because it is important to recognize that any legislation designed to raise several billion dollars a year from American industry cannot help but adversely impact this competitive struggle. When Superfund was passed in 1980, the feedstock tax was designed to raise a significant amount of money from relatively few companies. In the real world, however, the costs of that tax are, to the extent possible, passed down the line from those large feedstock producers through mid-size companies to my smaller members. Ostensibly, these smaller companies can also pass along this increased cost to their customers, but it is not easy to do so in the real world where your foreign competitors do not have a Superfund tax on their raw materials. This competition often causes the tax to have to be absorbed.

Yet, the 1980 feedstock tax has been accepted as another cost of doing business and my smaller members have found ways to live with this relatively small competitive disadvantage. However, with Congress now looking at raising the tax more than fivefold and adding an additional waste end tax on top of the feestock passalong, it will no longer be a slight disadvantage. If we pass these increased costs along to our customers, it will make imports that much more attractive in the American market and make our efforts to find and hold export markets even more difficult. If we have to absorb them, it will have a significant effect on earnings of smaller companies.

This Committee spends considerable time and effort worrying about tariffs and trade barriers. But I believe it needs to give sufficient consideration to the trade-distorting effects of other revenue measures while seeking ways of improving those measures so as to minimize, as much as possible, their adverse effects on our international competitive position.

Please keep in mind what I said earlier about our support for both Superfund's continuation and our recognition of the necessity of raising the funds necessary to clean up abandoned sites. There is no way that this amount of tax on business cannot but adversely affect our trade position. Our small companies are survivors, as proven over the past years. They will continue to find ways to live in the years ahead. However, it is your responsibility to ensure that the competitive burden placed on American business, especially these small companies, is minimized as much as possible.

This relates to our second concern. As far as we have been able to determine from the hearing record, from comments by EPA and through discussion with Congressional staff, there has been no rational basis developed to justify the immense increase in the funds generated by the tax. Other witnesses today have addressed the question of how much they feel is needed and how much can be usefully spent each year cleaning up dump sites. We tend to agree with some of those estimates but, to be honest, are not prepared to say exactly what number is correct. But we do not believe a revenue measure of this magnitude, and with such a potentially serious impact on thousands of small companies throughout the United States, should be based on what appears to us to be "back of the envelope" calculations. Should this Committee approve a tax measure of this magnitude without insisting upon a much more meaningful review of the dollars actually needed to get on with the clean-up?

We repeatedly hear how Congress is worried about the future of small business in this country and this particular Committee has continually emphasized its concern with regard to maintaining America's competitive position in world trade. It would be inconsistent with these concerns to rush through this kind of legislation without insuring in your own minds that the burden you are imposing on our small companies is no more than is necessary to deal with the problem.

Third, smaller companies have a particular problem with the method of applying the waste end tax. The formula for the tax would treat the generator of highly concentrated, toxic waste in the same fashion as a generator who has a very small quantity of such toxics in an immense volume of water. The latter, in effect, would be paying taxes primarily on the water. I cannot believe this is the intent of the authors.

Fourth, small companies do not have the same ability to take advantage of the exemptions as do the large companies, many of which are already incinerating some of their wastes and can avoid the tax. We are still many years away from having sufficient commercial incinerator capacity for my smaller companies to take advantage of that provision. In addition, it is far easier for the large companies to reduce their tax bill significantly by concentrating their toxic waste into solid form.

There is an easy way out of this dilemma by establishing a higher tax rate but basing it on the dry weight of the hazardous materials generated. This would equalize the taxes paid by everyone. A dry weight basis would remove the incentive in the proposed bill for companies to use landfills as the primary disposal mechanism—a result which flies directly in the face of efforts by Congress and environmental officials to minimize land disposal of hazardous waste. We strongly believe that the proposed waste end tax system, as presently structured, puts a significantly disproportionate burden on smaller companies and we urge this Committee to seriously consider using dry weight as the basis for calculating taxes.

Fifth, there exists a potentially serious administrative burden on smaller companies resulting from the new waste end tax. We urge the Committee to insure that the tax is collected at the disposal end of the chain rather than from the generator. This will eliminate immense amounts of additional paperwork for those thousands and thousands of companies I mentioned earlier, all of whom will be paying the tax anyway through chargebacks from the disposal facilities. It will also reduce the burden on the Internal Revenue Service in collecting the tax.

In summary, we urge this Committee not to act precipitously on H.R. 5640, which will have a major impact on thousands of small companies throughout the United States. There is plenty of time available between now and September 30, 1985 to reauthorize and amend Superfund.

We urge you to begin by determining with some care the total number of dollars which can be usefully spent over the next five years and then establish tax rates designed to raise those dollars.

Second, we believe the Committee should seriously consider the inequities of the proposed waste end tax and change it to a dry weight basis.

Third, we believe the waste end tax is more efficiently and more effectively collected at the disposal end rather than from the generator and ask the Committee to insure the system is established this way.

I cannot too strongly urge that the Committee treat this legislation with the care it deserves as a revenue bill. We stand by our commitment to pay for getting the job of cleaning up abandoned sites done but we urge you not to do it in a way which seriously threatens the viability of America's small businesses. We will cooperate with you in any way we can in helping determine the most efficient and equitable way of accomplishing this. Thank you.

SOCMA MEMBERSHIP

Aceto Industrial Chemical Corp.; American Cyanamid Co.; American Hoechst Corp.; Amoco Chemical Corp.; BASF Wyandotte Corp.; Berncolors-Poughkeepsie, Inc.; Biddle Sawyer Corp.; Bofors Nobel Inc.; Borden Inc.; Buffalo Color Corp.; Carey Industries, Inc.; Carroll Products, Inc.; Celanese Corp.; Chattem, Inc.; Chemdesign Corp.; Chemical Exchange Industries, Inc.; Chemtan Co., Inc.; Crown Metro, Inc.

Day-Glo Color Corp.; Degussa Corp.; DOW Chemical U.S.A.; Drew Chemical Corp.; E. I. du Pont de Nemours & Co.; Dye Specialties, Inc.; Esco—East Shore Chemical Co.; Inc.; EM Industries, Inc.; Evans Chemetics; Exxon Chemical Co.; FMC Corp.; Fairmount Chemical Co., Inc.; Fike Chemicals, Inc.; First State Chemical Co./Noramco of Delaware, Inc.

GAF Corp.; H & S Chemical, Inc.; Hexcel Chemical Products; Hilton-Davis Chemical Co.; the (Group of Sterling Drug, Inc.); Humphrey Chemical Co., The; ICI Americas Inc.; Jarchem Industries, Inc.; Johnson Matthey Inc.; Kohnstamm, H., & Co., Inc.; Loctite Corp.; Lonza, Inc.; Merichem Co.; Milliken Chemical (Div. of Milliken & Co.); Mobay Chemical Corp.; Monsanto Company; Morton Thiokol, Inc.; Muskegon Chemical Co.; Napp Chemicals, Inc.; National Starch & Chemical Corp.

Occidental Chemical Corp.; Olin Corp.; Orsynex, Inc. (a subsidiary of Essex Chemical Corp.); PPG Industries; C.H. Patrick & Co., Inc.; Pennwalt Corp.; Pfister Chemical, Inc.; Phillips Chemical Co. (a sub. of Phillips Petroleum Co.); Polaroid Corp.; Products Research & Chemical Corp.; R.S.A. Corp.; Reilly Tar & Chemical Corp.; SCM Corp. (Organic Chemicals Division); Salsbury Laboratories; Sandoz Colors & Chemicals; Soluol Chemical Co.; Inc.; Standard Chlorine Chemical Co., Inc.; Stauffer Chemical Co.; Sterling Organics (a division of Sterling Chemical Group); Sun Chemical Corp.; Sybron Chemicals Inc.; Synalloy Corp., Blackman Uhler Chemical Div.; Union Carbide Corp.; Upjohn Co., The; White Chemical Corp.; Witco Chemical Corp.; Wyckoff Chemical Co.

ASSOCIATE MEMBERS

Atlanta Chemical Co., Inc.; Biesterfeld U.S., Inc.; Brown & Caldwell; CP Chemicals, Inc.; Chemical Control & Management Services, Inc.; Chemisphere Corp.; Engelhard Industries; Environmental Research & Technology, Inc.; Erlanger & Co., Inc.; Fanwood Chemical, Inc.; R.W. Greeff & Co.; Inc.; Kennedy & Klim, Inc.; Mercantile Development, Inc.; Howard L. Minckler & Associates,; Mitsui & Co., (U.S.A.), Inc.; Montedison USA, Inc.; Nachem Inc.; Orlex Chemicals Corp.; Pylam Products Co., Inc.; R-Chem, Inc.; Wilson Dyne & Chemical Distributors, Inc.

Mr. **Gibbons**. One reason we are working hard today is so we can deliberate more when we get to the deliberative stage.

Mr. Woodruff?

STATEMENT OF HOMER H. WOODRUFF, JR., CHAIRMAN, SECONDARY LEAD SMELTERS ASSOCIATION

Mr. **Woodruff**. Mr. Chairman, I am Homer H. Woodruff, Jr., and I am chairman of the Secondary Lead Smelters Association, which I shall refer to today as the SLSA.

The SLSA is a nonprofit organization of 26 companies who are presently operating 36 plants across the United States. The SLSA, which was established in 1972, represents approximately 85 percent of the secondary lead smelting capacity in the United States that was created to promote the common interests of the secondary lead smelting industry. Lead is produced by either primary or secondary lead smelters.

Primary lead smelters obtain ore from mining operations and extract the lead from the ore. Secondary lead smelters reclaim lead from scrap materials such as spent automobile storage batteries.

Generally, most primary and secondary smelters employ a blast furnace operation which produces a molten lead mixture. Presently, lead production in the United States is approximately 1.2 million tons annually.

Secondary smelters account for approximately one-half of this amount. Finished products manufactured from lead by either primary or secondary lead smelters include automative and industrial batteries, construction material and protective materials used in hospitals to shield patients from x rays and nuclear radiation, and additives in the manufacture of ceramics, plastics, and solder.

I would like to now highlight the SLSA's position with respect to H.R. 5640. The SLSA supports the reauthorization of Superfund subject to the following four amendments:

One, the SLSA believes that the feedstock tax imposed on nonferrous metals should be reduced by 50 percent if the metal is recycled.

Two, the SLSA opposes a waste end tax.

Three, the SLSA supports a tax on all imported products, alloys or compounds containing nonferrous metals.

And, four, the SLSA supports an exemption from feedstock tax for any nonferrous metal which is exported.

I would like now to briefly state why we are seeking these revisions to the bill. As this committee considers Superfund, it should bear in mind that under RCRA, the secondary lead industry's principal competitors, the primary lead producers, are presently exempt from complying with its requirements.

The secondary lead smelting industry, however, must comply with RCRA if its wastes are deemend hazardous.

Thus, with respect to certain byproducts of the secondary lead smelting industry known as slag, which may be deemed to be hazardous, our industry must comply with an expensive and burdensome regulatory scheme.

Please bear in mind, however, that our industry is fully committed to complying with RCRA as well as the obligations arising under Superfund.

We strongly believe, however, that our competitors, both domestic and international, should be subject to the same requirements.

It is for this principal reason the SLSA opposes a waste end tax, supports a tax on imported products containing nonferrous metal, and supports an exemption for any nonferrous metal that is exported.

Specifically, under H.R. 5640, the primary producers of lead would not be required to pay a waste end tax, since the bill incorporates the RCRA exemption for mining waste.

The SLSA believes that equity demands that its industry be similarly exempt. Once again, please understand that our position is one of equality, that is, we are not seeking to avoid the obligations that Congress deems to be appropriate for our industry, but rather, we just wish to be placed on equal footing with our competitors.

Otherwise, we will be placed at a distinct competitive disadvantage. Similarly, we believe a tax should be placed on imports, since more and more of our industry is falling prey to imports from other countries.

Indeed, nearly 20 plants have closed down in the last 4 years. Treating imports with the same fee structure as domestic production is entirely appropriate, since imports create the same environmental consequences.

Exempting imports from the taxes incurred by domestic production would further jeopardize the future of our domestic industry. In addition, we also believe that this committee should exempt from the Superfund tax nonferrous metal which is exported.

Without such an exemption, our industry and other domestic smelting industries will not be able to compete fairly in foreign markets.

The final point is the social benefit our industry provides to this country. Without the secondary lead smelting industry, used batteries would be disposed of in an unacceptable manner. Such disposal methods would create environmental problems for the country.

With a viable secondary lead smelting industry, however, this danger will be removed as our industry purchases used batteries and reclaims the lead that is contained within them.

In so doing, we comply with all the applicable environmental requirements. It is thus important that our industry be allowed to survive and indeed be encouraged to survive.

Congress, in fact, recognized the importance of our activities when it enacted RCRA. As you know, RCRA's principal objective is to encourage the recycling of our natural resources.

In light of the benefit of recycling, we are seeking a reduction in the feedstock tax under Superfund, which will hopefully allow us to compete on an equal footing with our competitors, and which will allow us to continue our recycling efforts.

I trust that in this short presentation, I have been able to give you a sense of what our concerns are. I also would like to note that two of our concerns with respect to a reduction of feedstock tax for recyclers of nonferrous metal and a tax on imports were adopted as committee recommendations by the Committee on Energy and Commerce.

Thank you for your time.

[The prepared statement follows:]

STATEMENT OF HOMER H. WOODRUFF, JR., CHAIRMAN OF THE SECONDARY LEAD SMELTERS ASSOCIATION

Good morning. My name is Homer H. Woodruff and I am Chairman of the Secondary Lead Smelters Association, which I shall refer to today as the SLSA. I am here testifying today on H.R. 5640, which seeks to reauthorize and amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly referred to as Superfund.

The SLSA, which represents approximately 85 percent of the secondary lead smelting capacity in the United States, is a non-profit organization that was created to promote the common interests of the secondary lead smelting industry. In particular, the SLSA provides information services and undertakes studies regarding safety and environmental conditions and controls within the industry for its members, and develops and provides information concerning the industry to the public and to federal and state legislative and regulatory bodies. I have attached as Appendix A to my testimony a list of the companies who are members of the SLSA.

Before I present the SLSA's position on H.R. 5640, I would first like to give you some background information about our industry.

Lead produced in the United States is produced by either "primary" or "secondary" lead smelters. Primary lead smelters obtain ore from mining operations and extract the lead from the ore. Secondary lead smelters reclaim lead from scrap materials such as spent automobile storage batteries, lead scrap, telephone cable sheathing and other lead-bearing materials. Both primary and secondary smelters employ a blast furnace operation in which the raw materials are mixed with coke, cast iron, and limestone, producing a molten lead mixture. A by-product of the blast furnace operations is slag. In secondary operations, approximately one ton of slag is produced for every four tons of lead. As I will discuss later in this testimony, the slag of secondary smelters may, in certain instances, be considered a hazardous waste and thus potentially subject to regulation, while the slag of primary smelters is presently not considered a hazardous waste.

Presently, lead production in the United States is approximately 1,200,000 tons annually. Secondary smelters account for approximately one-half of this amount. Finished products that are manufactured from lead by either primary or secondary lead smelters include: (1) automotive and industrial batteries; (2) construction material for tank linings, piping and other equipment; (3) protective materials used in hospitals to shield patients from x-rays and nuclear radiation; and (4) additives in the manufacture of ceramics, plastics, and solder.

The secondary lead industry has experienced a severe decline in recent years. Over this period, the cost to the industry of purchasing its raw materials has risen while the price of lead has dropped. Cost margins have been squeezed, sometimes to the point where production costs can no longer be covered. As a result, nearly 20 secondary lead smelting plants have been closed over the last four years. The principal factors that have caused the severe economic difficulties in the industry are: (1) increased exports of scrap metal to foreign countries where prices for scrap are higher because they can be offset by lower labor and/or regulatory costs; (2) extreme drops in the market price of lead (a 60% drop, for example, since 1979); and (3) increased manufacturing costs attributable to the costs of compliance with environmental and health regulations.

Against this backdrop, I will now present the SLSA's position with respect to H.R. 5640. The SLSA supports the reauthorization of Superfund, subject to the following amendments:

(a) With respect to any non-ferrous metal which is taxed pursuant to subsection (b) of section 4661 of the Internal Revenue Code of 1954, the recycler of said non-ferrous metal shall only pay 50 percent of the rate specified in section 4661(b);

(b) The SLSA opposes a waste end tax;

(c) The SLSA maintains that any tax imposed on domestic non-ferrous metals pursuant to section 4661(b) of the Internal Revenue Code of 1954 shall be equally applied to all imported products, alloys, or compounds containing non-ferrous metals including, but not limited to, lead oxide; said tax will be based on the metal content of any such imported products alloys, or compounds.

(d) The SLSA supports an exemption from section 4661(b) of the Internal Revenue Code of 1954 for any non-ferrous metal which is exported.

I will now discuss the rationale for each of these proposed amendments.

I. RECYCLERS OF NON-FERROUS METALS SHOULD PAY A REDUCED TAX ON CHEMICAL FEEDSTOCKS

The reauthorization of Superfund should include economic incentives encouraging the reuse by industrial manufacturers and producers of limited natural resources. Reuse of lead, for example, conserves the limited supply of lead ore in the earth's crust. It diminishes the risks that may be posed to the environment due to improper disposal of lead-containing waste products, such as used batteries. In fact, Congress gave specific legislative encouragement to recycling by enacting the Resource Conservation and Recovery Act (42 U.S.C. § 6901(c)), referred to as RCRA. Specifically, Congress determined the following when it enacted RCRA:

(1) Millions of tons of recoverable material which could be used are needlessly buried each year;

(2) Methods are available to sparate usable materials from solid waste; and

(3) The recovery and conservation of such materials can reduce the dependence of the United States on foreign resources and reduce the deficit in its balance of payments.

The recycling by SLSA of used lead-containing products thus accomplishes the environmental and economic policy goals that Congress articulated in RCRA.

The SLSA believes that as a matter of fairness and social policy, the Superfund tax on non-ferrous metals should be reduced when the metals are produced by recycling materials and reclaiming the non-ferrous metals. This proposal is fair because it avoids the potential of double taxation. That is, such a provision would not tax fully both the original production of the taxable non-ferrous metal and the non-ferrous metals subsequently produced when the discarded lead products are reprocessed. More importantly, the proposal would encourage recycling by giving an incentive to the extraction of usable non-ferrous metals from scrap that would otherwise have been discarded. The SLSA believes strongly that this proposal is not only in the self-interest of its members but, as demonstrated by the Congressional findings in RCRA, it is in the national interest as well.

The specific revision that the SLSA supports is a 50 percent reduction in the tax imposed under Superfund for recyclers of non-ferrous metals. In accord with this recommendation, I have attached to this testimony as Appendix B a proposed amendment. It is the understanding of the SLSA that congressman Wyden proposed similar language when the Committee on Energy and Commerce recently considered H.R. 5640, and the language was adopted as a Committee recommendation.

I will now address the SLSA position on a waste end tax.

II. THE PROVISION FOR A WASTE END TAX SHOULD BE ELIMINATED

H.R. 5640, in section 4681, imposes a waste end tax on the disposal of any hazardous substance if such disposal is required to be carried out in compliance with Subtitle C of the Solid Waste Disposal Act. As noted earlier, the SLSA opposes such a tax.

The member companies of the SLSA must comply with the Subtitle C requirements of RCRA regarding disposal of hazardous wastes if such wastes are deemed hazardous. Slag, which is produced by a by-produce of the smelting process, may, in certain instances, be considered hazardous. To determine if the slag is hazardous, secondary lead smelters must continually analyze the slag which is an extremely expensive process. Assuming the slag is hazardous, its disposal would, therefore, be subject to the regulatory requirements under Subpart C which requires, in part, manifests, recordkeeping and reporting, groundwater protection, closure and post-closure, financial assurances, use and management of containers, and contingency plans. Since the promulgation of the RCRA regulations, the SLSA members have developed the required operational procedures and made the expenditures necessary to insure that their plants comply with RCRA and its regulations.

Achieving compliance with this new regulatory scheme, however, has not been easy. As I pointed out in my opening remarks, the secondary lead smelting industry has been in a severe economic recession for several years. In fact, several existing and former SLSA members have declared bankruptcy. Despite the economic burden imposed on the industry, however, the secondary lead smelting industry is committed to complying with the provisions of RCRA. Nevertheless, the payment of yet another tax in the form of a waste end tax may make continued operation prohibitively expensive for the secondary lead smelting industry.

In particular, it must be recognized that the secondary lead smelting industry will be at a severe competitive disadvantage if it is subject to a waste end tax since such a tax will not be imposed on its main competitors, the primary lead smelting industry. The wastes of the primary lead smelting industry are presently exempt from regulation pursuant to the RCRA "mining waste" exemption, which exempts "solid waste from the extraction, beneficiation, and processing of ores and minerals from" regulation under RCRA "until at least six months after the date of submission of the applicable study required to be conducted under subsection (f), (n), (o), or (p) of section 8002 of this Act . . ." (See 42 U.S.C. § 3001(3)(A)(ii)).

H.R. 5640, under section 4682(3), correspondingly exempts from the waste end tax "the disposal of any solid waste which is required to be studied under (f) or (p) of section 8002 of the Solid Waste Disposal Act unless, after the completion of the studies, a law is enacted subjecting such waste of the tax imposed by section 4681." The studies referenced in RCRA and H.R. 5640 have not been completed by EPA.

Therefore, H.R. 5640, read in conjunction with RCRA, would exempt primary lead producers from the waste end tax. Primary lead producers have thus been given a competitive advantage by being exempted from RCRA and will enjoy an even greater competitive advantage if they are also exempt from the waste end tax.

The SLSA believes that the financial and administrative burdens of a waste end tax should not now be imposed upon the secondary lead and other waste-producing industries who are still adapting to the additional expenditures and operational burdens of RCRA compliance. The economic burden of a waste end tax will be imposed in addition to the tax of $14.94 per ton of lead proposed under H.R. 5640—a burden not currently being imposed since lead is presently not taxed under Superfund. If, however, the waste end tax is retained in H.R. 5640, the SLSA respectfully requests that Congress exempt the waste of the secondary lead smelting industry from the tax in order that primary and secondary lead producers are treated equally; otherwise, the competitive advantage currently enjoyed by the primary producers will result in a clear disincentive to recycling scrap metal thus undermining the Congressional objectives set forth in RCRA.

A final reason for elimination of the waste end tax is that such a tax could encourage improper disposal of hazardous waste. While the SLSA members would, of course, comply with the law and any implementing regulations, others outside the industry may not be so responsible. Waste disposal is currently expensive when done properly. An additional tax could result in a significant noncompliance problem if such waste is disposed illegally in order to avoid the tax. Moreover, the illegal disposal of scrap metal upon which the SLSA members depend, could seriously impact the industry as its raw materials may not be available. The potential shortage of raw materials is particularly troublesome as there already exists a limited supply of said materials since scrap metal is increasingly being exported and illegal dumping could exacerbate this situation.

I will now talk about a tax on imported products.

III. EQUALITY OF FEES ON DOMESTIC AND IMPORTED PRODUCTS

As taxes on raw materials under Superfund are increased, a significant competitive disparity arises between products manufactured domestically and those imported from overseas. This disparity is most obvious when the manufactured product, as in the case of an automotive battery, contains a substantial amount of a taxable substance (such as lead in its original form or in a simple compound (lead oxide) which is easily measurable.

For example, under the tax rates proposed in H.R. 5640, the automotive battery industry will pay a tax on each automotive battery of approximately $.15. This tax is sufficient to create a market disadvantage for domestic producers who already face rising costs of environmental regulations not incurred by many foreign manufacturers. Imports of lead acid batteries into this country, which rose between 1980 and 1983 by 130 percent (from $46 to $107 million), are continuing sharply upwards. Domestic producers faced with this foreign competition may be required to curtail or abandon their operations, thus resulting in less demand for lead in the United States and a further drop in lead prices.

To correct the competitive disadvantage which will be made worse by the addition or increase in Superfund taxes, the SLSA recommends that a fee be placed on imported products, alloys or compounds containing non-ferrous metals including, but not limited to, lead oxide. This tax should be based on the metal content of any imported products, alloys, or compounds.

I will now address the SLSA's final issue—an exemption for the export of metals.

IV. THE SLSA SUPPORTS AN EXEMPTION FROM SECTION 4661(b) OF THE INTERNAL REVENUE CODE OF 1954 FOR ANY EXPORTED NON-FERROUS METAL

While United States lead producers have, with difficulty, managed to offer competitive prices in world markets more and more frequently prices of United States producers have been undercut by British and French producers and Japan appears as well to be increasing its competitive edge. To confirm this point, I have attached as Appendix C to my testimony a chart that depicts the different world-wide market price trends for 1979–1981. The SLSA would be happy to present more recent data which would document the continuing world-wide market decline if the Committee believes that such information would be useful.

Foreign producers have an obvious pricing advantage in that, unlike United States producers, they do not have to pass on to lead purchasers the costs represented by the Superfund tax on chemical feedstocks. Furthermore, unlike United States manufacturers, foreign producers do not have to incur the costs imposed by stringent environmental and safety regulations. Therefore, the SLSA supports an exemption from the Superfund tax for exported non-ferrous metals in order that the United States producers do not suffer a severe competitive disadvantage in world lead markets. This exemption would place exported non-ferrous metal on an equal footing with non-ferrous metal produced in foreign countries.

SUMMARY

In summary, the SLSA seeks four revisions to H.R. 5640: (1) a 50-percent tax reduction on production of non-ferrous metals from recycled materials; (2) elimination of the waste end tax; (3) the imposition of a tax on the metal content of imported products and (4) the elimination of the Superfund tax for exported non-ferrous metal.

These measures, if enacted, will go far to improve the economic viability of a valuable American industry. Moreover, they are based upon sound and socially beneficial principles. Encouraging efforts to conserve scarce natural resources makes good sense for the country as well as our industry. Subjecting primary and secondary lead producers to equal, rather than disparate, regulatory requirements accords fundamental tenets of equal protection. And, achieving stable and healthy markets for products sold abroad is beneficial not only to the SLSA but to the nations's balance of payments. On behalf of the SLSA, I thank you for the opportunity to present our views. I would be happy to respond to any questions the Committee may have.

APPENDIX A

SLSA MEMBERSHIP

1. Chloride Metals, 3507 50th Street South, P.O. Box 488, Tampa, FL 33601.
2. Daelco, Inc., 5909 E. Randolph Street, City of Commerce, CA 90040.
3. East Penn Mfg. Co., Deka Road, Lyon Station, PA 19536.
4. Environmental Engineering Consultants, Inc., 5119 N. Florida Ave., P.O. Box 7854, Tampa, FL 33603.
5. General Battery Corporation, P.O. Box 1262, Reading, PA 19603.
6. Gopher Smelting & Refining Co., 3385 South Hwy. 49, Eagan, MN 55121.
7. GNB, Metals Division, P.O. Box 43484, St. Paul, MN 55164.
8. Gulf Coast Lead Company, 1901 N. 66th Street, Tampa, FL 33619.
9. Hammond Lead Products, Inc., P.O. Box 308, 5231 Hohman Avenue, Hammond, IN 46325.
10. Tropical Battery Co., Ltd., 13 Ashenheim Road, P.O. Box 148, Kingston 11, Jamaica, W.I.
11. M.A. Industries, Inc., P.O. Box 2322, Peachtree, GA 30269.
12. McKim & Assoc., Inc., 3435 Lorna Lane, P.O. Box 36127, Birminghan, AL 35236-6127.
13. Powerlab, Inc., P.O. Box 913, 1145 Virginia Street, Terrell, TX 75160.
14. Preussag Metal, Inc., 1200 Garnier Street, Ville Ste-Catherine, Quebec, Canada, JOL 1EO.
15. RSR Corporation, 1111 W. Mockingbird Lane, Dallas, TX 75247.
16. Metals Trading Co., Inc., 257 West Mallory, P.O. Box 9006, Memphis, TN 38109.
17. Resource Consultants, Inc., Suite 340, Two Maryland Farms, P.O. Box 498, Brentwood, TN 37027.
18. Ross Metals, Inc., 100 N. Railroad Street, P.O. Box 57, Rossville, TN 38066.
19. Sanders Lead Company, Henderson Road, Troy, AL.
20. Schuylkill Metals Corp., P.O. Box 73916, Baton Rouge, LA 70807.
21. U.S.S. Lead Refinery, Inc., 5300 Kennedy Avenue, East Chicago, IN 46312.
22. Zero Bullet Company, P.O. Box 1012, Cullman, AL 35055.
23. Murmur Corporation, Two Energy Square, Suite 450, 4849 Greenbille Avenue, Dallas, TX 75206.
24. Lake Engineering & Development, Inc., 6000 Lake Forrest Drive, Suite 350, Atlanta, GA 30328.
25. Tonolli North American, One Eva Road, Suite 215, Etobilloke (Toronto), Ontario, Canada M9C 425.
26. ILOC, Inc., P.O. Box 276, Leeds, AL 35094.

APPENDIX B

[Sec. 504]

AMENDMENT TO H.R. 5640 PROPOSED BY THE SECONDARY LEAD SMELTERS ASSOCIATION

Page 64, after line 23, insert:

(d) RECYCLED METALS.—Section 4662(b) of such Code is amended by inserting the following new paragraph at the end thereof:

(5) "RECYCLED METALS.—

"(A) IN GENERAL.—In the case of any item listed in the table under section 4661(b) which is a recycled metal, the tax rate under section 4661 shall be 50 percent of the rate specified in such table.

"(B) DEFINITIONS.—For purposes of this paragraph, the term—

"(i) 'Solid waste' shall have the meaning provided by section 1004 of the Solid Waste Disposal Act.

"(ii) 'Recycled metal' means aluminum, chromium, cobalt, lead, nickel, zinc and any other metal recovered or diverted from solid waste for reuse. Such term does not include any chemical, or any mining waste."

APPENDIX C

TABLE A6.1.—RECENT COMPARATIVE LEAD PRICES IN U.S. CENTS/POUNDS (MONTHLY AVERAGE)

	Producer prices					
	LME [1]	United States	Japan	France	Italy	USPP premium on LME
1979:						
July	57.6	58.1	62.5	60.0	68.6	0.5
August	54.9	57.9	59.7	56.4	60.8	3.0
September	55.8	58.0	59.6	59.1	62.0	2.2
October	59.8	61.1	61.9	61.6	64.3	1.3
November	55.9	57.3	59.1	57.1	65.1	1.4
December	53.4	55.9	59.3	55.1	64.5	2.5
1980:						
January	50.6	49.9	57.3	52.7	61.5	−.7
February	52.9	49.6	56.6	53.6	61.3	−3.3
March	50.8	49.2	58.2	51.5	58.9	−1.6
April	43.9	44.0	51.0	46.7	55.3	.1
May	35.5	36.0	45.4	38.3	49.6	.5
June	33.4	34.2	40.1	35.3	43.3	.8
July	36.8	35.6	40.8	38.9	44.8	−1.2
August	38.6	41.0	44.3	41.3	46.3	2.4
September	40.0	42.3	46.2	42.3	47.7	2.3
October	39.5	45.0	46.1	42.1	48.1	5.5
November	36.7	43.8	42.9	39.7	45.3	7.1
December	33.4	39.0	40.8	35.8	43.0	5.3
1981:						
January	32.0	33.4	39.2	34.2	40.3	1.4
February	31.2	30.4	37.0	32.7	36.5	−.8
March	33.1	35.1	38.4	34.4	38.7	2.0
April	34.4	37.5	39.1	36.2	39.5	3.1
May	31.6	36.4	38.0	33.0	38.0	4.8
June	32.3	38.0	37.5	34.0	37.0	5.7
July	35.5	41.0	38.0	37.2	39.5	5.5
August	37.4	43.9	42.3	39.2	42.0	6.5
September	34.6	40.3	40.3	37.2	42.0	5.7
October	38.9	37.1	37.9	34.3	39.1	−1.8
November	30.2	33.9	37.1	32.4	37.6	3.7
December	30.6	31.1	36.3	32.8	35.2	.5

[1] London Metals Exchange.

Mr. GIBBONS. Thank you, Mr. Woodruff.

I want to thank you for coming by the office yesterday.

Mr. Marucheau?

STATEMENT OF LOUIS J. MARUCHEAU, ASSISTANT GENERAL COUNSEL, AMAX ENVIRONMENTAL SERVICES, INC., ON BEHALF OF AMAX, INC.

Mr. MARUCHEAU. I am Louis Marucheau, assistant general council with AMAX Environmental Services. I speak on behalf of AMAX, a large diversified natural resources corporation which produces a variety of metals and chemicals, a number of which are in fact taxed or presently subject to Superfund tax.

Today, we urge that any reauthorization of Superfund contain two points. The first is that we believe that aluminum, nickel, and zinc should not be taxed as feedstocks.

Second, any tax that may affect nonferrous metals should have special rules to ensure that and to mitigate against adverse impacts against the domestic metals industry.

We support the views regarding aluminum expressed earlier, so we will focus on nickel and zinc, which are naturally occurring and are relatively nontoxic and are considered to be essential to human metabolism.

We are used to making products that do not release the metals into the environment and are both produced by industries currently suffering severe economic depression.

Nickel metal is considered relatively nontoxic by the EPA, the National Academy of Sciences, the World Health Organization, and the FDA. Zinc is used extensively as a health and medical treatment aid as described earlier.

Indeed, the major health problem identified in the United States with zinc is a zinc deficiency in the American diet. In addition to being relatively nontoxic, nickel and zinc metals are extremely stable in the environment.

The primary use of nickel metal is for stainless steel and other inert metal alloys. The coins you have are such alloys. In similar manner, the primary use of zinc metal is for galvanizing to protect from corrosion.

Less than 1 percent of zinc consumption is used to make zinc-bearing chemicals. Because zinc and nickel are considered nontoxic and because the metals themselves do not constitute the kind of feedstock normally turned into dangerous chemicals by downstream industries, we believe that they should not be included in the Superfund legislation.

Apart from the fact that there is no scientific basis for listing them, the economic impact of such a tax would be so severe that it should not be imposed.

Nickel and zinc are commodities traded on a worldwide basis. The prices of these metals are determined by free exchanges and are unresponsive to any particular national tax.

In addition to substantial foreign competitive advantage due to little or no environmental control, government subsidies and cheap labor, foreign metals are regularly sold in the United States and elsewhere at below their already-low cost in order to penetrate these markets, to obtain badly-needed hard currencies.

In the case of nickel, AMAX owns and operates the only nickel refinery in the United States. Although we have been paying a Superfund tax on nickel and cobalt for over 3 years, we have not been able to pass this tax onto our customers.

Due in part to nickel entered into the market by the Soviet Union, nickel prices are the same price they were 9 years ago in constant dollars, are on a 15-year low. Any increased price by AMAX will result in immediate loss in sales.

Because of extremely low prices, the refinery has in its short life yet to attain profitability. We have significantly reduced costs by improving labor productivity and by improving energy efficiency, but there are very few prospects of further reductions of costs.

With few costs left to cut, and no current profits to assist in covering a tax, a continuation of the present tax, let alone tripling it, will have a direct and immediate adverse economic impact on the refinery.

While the tax may seem small in relation to the overall fund, it equates to jobs. We have been forced to reduce our employment by one-third since 1980. Continued nonprofitability may ultimately result in closure, with the consequence that the United States will lose its only capability to refine the strategically important metals of nickel and cobalt.

It is unfair to AMAX to cleanup waste sites which were generated in error. We think it is unfair to tax a facility that does not produce any hazardous wastes.

Although the U.S. zinc industry—I should mention that zinc is in the same basic state. The only comment is that when Congress, in 1980, recognized the state of the industry and also the low toxicity, we would urge that they continue that assessment in this current reauthorization.

The final point I would like to mention is on nonferrous metals. I would like to summarize. I think the situation here is in nonferrous metals we are talking about worldwide commodities, and we feel that any tax will have an impact.

We will not eliminate foreign competitive advantage, but we hope to at least reduce the harm that will be caused by this. These points are ticked off on the sheet before you. The main onces are to tax imports of metals contained in fabricated lead products, including batteries, to have a credit or some relief on exports, and we believe that any waste tax should also be fair to the metals industry.

There are a couple of other points, but a final one is we believe there should be equality between the primary and secondary industries in any taxing scheme that is set up.

If you have any questions, I would be happy to answer them.

[The prepared statement follows:]

STATEMENT OF LOUIS J. MARUCHEAU, ASSISTANT GENERAL COUNSEL, AMAX ENVIRONMENTAL SERVICES, INC., ON BEHALF OF AMAX, INC.

Thank you, Mr. Chairman. I am Louis J. Marucheau, Assistant General Counsel, AMAX Environmental Services, Inc. and am testifying today on behalf of AMAX Inc., a large diversified natural resources corporation. AMAX produces a variety of metals and chemicals, a number of which have been subject to the Superfund feedstock tax.

We urge that any reauthorization of Superfund contain the following two points:

Aluminum, nickel, and zinc should not be taxed as feedstocks under 26 U.S.C. 4661.

Any tax affecting nonferrous metals should have special rules to mitigate adverse impacts on the domestic metals industry.

ALUMINUM, NICKEL, AND ZINC SHOULD NOT BE LISTED

We support the views presented earlier of the Aluminum Association regarding the listing of aluminum and will focus our remarks today on the issue of whether nickel and zinc should be listed. Nickel and zinc are very similar.

Both are naturally occurring and relatively nontoxic.

Both are considered to be essential to human metabolism.

Both are used primarily to make products that do not release the metals into the environment.

Both are produced by industries which are currently suffering severe economic hardship.

Nickel and zinc are relatively nontoxic

Nickel metal is considered relatively nontoxic by the Environmental Protection Agency, the National Academy of Sciences, and the World Health Organization. The Food and Drug Administration has formally classified nickel as Generally Recognized as Safe (GRAS).

Zinc is not only considered nontoxic to humans, but is used extensively as a health and medical treatment aid. Indeed, the major health problem in the United States identified with zinc is a zinc deficiency in the American diet.

In addition to being relatively nontoxic, nickel and zinc metals are extremely stable in the environment. The primary use of nickel metal (86%) is for stainless steel and other inert metal alloys. The cutlery you eat with and the coins you carry in your pocket are such alloys. In similar manner the primary use of zinc metal is for galvanizing to protect steel and other metals from corroding. Less than 1% of U.S. zinc consumption is used to make zinc bearing chemicals.

Because nickel and zinc are considered nontoxic to humans and because the metals themselves do not constitute the kind of "feedstocks" that are normally turned into dangerous chemicals by downstream industries, we believe that nickel and zinc should not be included in the list of taxable chemicals under the Superfund "feedstock" tax.

U.S. nickel industry is economically depressed

Apart from the fact that there is no scientific basis for listing nickel and zinc, the economic impact of such a tax will be so severe that it should not be imposed. Similar to other metals, nickel and zinc are commodities which are traded on a world wide basis. Prices of such metals are determined by free commodities exchanges such as the London Metals Exchange and are unresponsive to any particular national tax. In addition to substantial foreign competitive advantages due to little or no environmental control costs, government subsidies, and cheap labor, foreign metals are regularly sold at below their already low cost to penetrate United States and other markets in order to obtain badly needed hard currencies.

In the case of nickel, AMAX owns and operates the only nickel refinery in the United States. Although we have been paying a Superfund tax on nickel and cobalt for over three years now, we have not been able to pass on the tax to our customers. Due in part to nickel entered into the world market by the Soviet Union to earn hard currencies, nickel prices are at the same price they were nine years ago and on a constant dollar basis are at a fifteen year low. Any increase in price by AMAX would have resulted in immediate loss in sales.

Because of extremely low prices, the AMAX nickel refinery has, in its short life, yet to attain profitability. AMAX has significantly reduced costs by improving labor productivity and energy efficiency, but there are very few prospects of further reducing costs. With few costs left to cut and no current profits to assist in covering the tax, a continuation of the present tax (let alone trebling the tax) will have a direct and immediate adverse economic impact on the refinery.

While the tax may seem small in relation to the overall fund, it equates to 16 fewer jobs at the refinery. The refinery has already been forced to reduce its employment by one third since 1980. Continued nonprofitability may ultimately result in closure with the consequence that the United States will lose its only capability to refine the strategically important metals of nickel and cobalt. It is particularly unfair to tax AMAX to clean up waste sites generated in an era when domestic nickel production was negligable or non-existent.

U.S. zinc industry is economically depressed

Although the United States' zinc industry consists of a number of primary and secondary producers, is has also experienced the depressed economic conditions currently found in the nickel industry and is only beginning to recover. In a little more than a decade there has been a drastic erosion of the United States' competitive position in the world zinc market.

In 1983 the industry produced less than one third of its 1970 levels. Between 1969 and 1983, four of 14 zinc smelters closed. Dependency on foreign zinc production has increased from 20–25% a decade ago to 70% in 1983. The U.S. Department of Commerce publication entitled "1984 U.S. Industrial Outlook" stated: "Import penetration is expected to continue to increase as other countries expand capacity."

When Superfund was passed in 1980, the Congress wisely made a conscious decision to not tax zinc but rather to tax two zinc bearing chemicals. The decision was based not only on recognition of zinc's low toxicity, but also on its concern for the industry's depressed economic condition. The zinc industry has not yet recovered and should continue to be spared from such a tax.

TAXING OF NONFERROUS METALS

Assuming that aluminum, nickel, and zinc are not listed as taxable chemicals under the Superfund, AMAX Inc. still has concerns that any nonferrous metals which may remain on the list be treated in a fair way. As stated above, metals are a world market commodity which will often preclude the passing on of any national taxes such as the Superfund tax. The following suggestion, while not eliminating certain foreign competitive advantages, will at least not further harm the domestic metals industries to the benefit of foreign producers:

Tax on imports should include the nonferrous metal content of any fabricated material, any alloy or compound containing 5% by weight of the metal, or lead acid batteries (assuming lead is taxed).

The primary producers of nonferrous metals should not be discriminated against in favor of the secondary producers.

Nonferrous metal bearing materials should not be taxed until they have been refined to the state at which the metal is commercially sold.

Transitory substances produced during the processing of metals should not be taxed unless removed from the process for sale or use.

Exports should not be taxed.

Tax should be imposed at the point of purchase and collected from the purchaser by the seller.

A waste-end tax should not be imposed on the metals industry.

Extending the tax on imports to those imports of fabricated metal products containing a taxable nonferrous metal will ensure that foreign producers will not be able to circumvent the tax by selling to intermediate fabricators who take refined metal and make it into various shapes and forms (e.g., wire, rod, and sheet) and then have the shapes imported to the United States. Some competitive imbalances will remain because this tax would not extend to consumer products (with the exception of lead acid batteries) and would not prevent substitution of other materials for the metals. However, it is believed to be a fair and easily administered tax.

A specific comment on lead batteries is warranted. Because automobile batteries represent a substantial source of lead imported into the United States, they should be included in any import tax on lead metal. While we believe that primary and secondary metals producers should be treated equally, the fact that substantial amounts of lead batteries are recycled warrant special consideration. We suggest that the tax on lead be reduced to reflect the fact that a certain amount of lead is recycled and never enters the environment.

The position suggesting that pre-refining metal bearing materials and transitory in-process substances not be taxed is really a clarification of present law that only materials produced in commercial form and intended for sale should be taxed.

The provision that exports not be taxed is important if the domestic metals industry is to have any chance to compete overseas. Despite the many competitive advantages foreign producers have, domestic producers may be able to compete in certain metals markets because of high efficiencies and technologies. A tax on all domestic production, including that destined for overseas, would destroy any such opportunity.

Collection of the tax from the purchaser will not prevent domestic metals producers from having to absorb some of the Superfund tax, but we believe it will assist in passing on the tax. For example, where prices are fixed (e.g., when pegged to the London Metals Exchange price) the imposition of the tax on top of the price (as opposed to being on the producer's sales to be recouped by higher prices), may allow some transference of the tax.

Finally, a waste-end tax which would not be paid by foreign producers would grant a major competitive advantage directly to such producers.

IMPACT OF SUPERFUND TAXATION ON DOMESTIC PRODUCTION

The U.S. has only one primary nickel producer in the U.S., AMAX's Port Nickel Refinery in Braithwaite, Louisiana. At capacity, the Refinery produces approximately 80 million pounds of strategic nickel metal per year.

H.R. 5640, as introduced, proposes to tax nickel metal at $14.94 per ton. While this tax amounts to less than $1 million a year out of a proposed $9 billion to be raised for Superfund. It is an unfair and additional economic burden to place on the sole domestic nickel producer in today's depressed market. The Superfund tax penalizes domestic producers and workers in several ways:

Almost three quarters of the Western world market is abroad. AMAX sells more than fifty percent of its production overseas, in competition with foreign producers who do not bear this tax burden.

AMAX Nickel has not attained profitability in its short 10 year history. Nickel prices at approximately $2.20 per pound correspond to prices realized nine years ago, and on a constant dollar basis are at a 15 year low. Even the most efficient producer in the Western world claims $2.50 as the break-even cost but has to sell at lower prices in the face of commodity market pressures from subsidized economies.

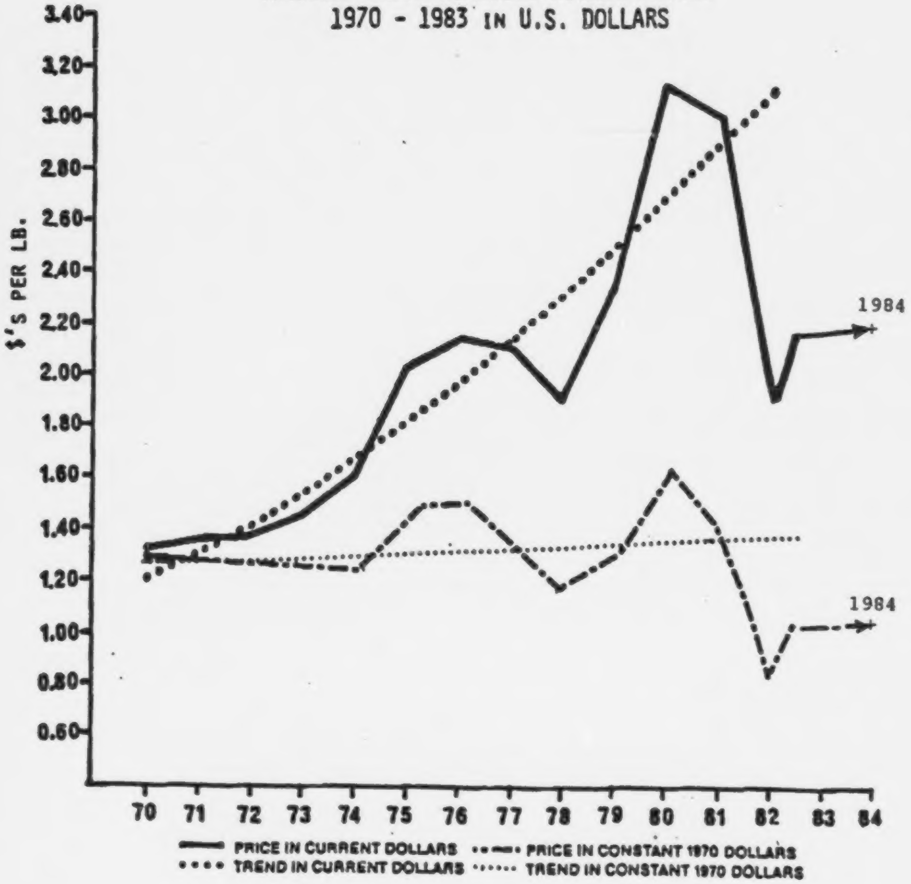
The livelihood of 450 employees are in jeopardy as is the business spin-off to an economically depressed area of South Louisiana. This proposed Superfund taxation exceeds the payroll cost of 16 of these employees.

The Port Nickel, Louisiana refinery is one of the most efficient nickel refineries in the world, producing non-harmful materials and generating no hazardous wastes from its environmentally clean facilities. Yet, because some nickel compounds may be considered hazardous, nickel metal, in general, is being unfairly taxed, and has been since 1980.

Since Superfund taxation was introduced in late 1980, the nickel business has deteriorated steadily because of economic recession and faltering capital goods demand. The Port Nickel refinery has faced the challenge by aggressive cost cutting and efficiency improvements. Labor productivity was increased by 49%, energy efficiency improved by 25%, the workforce was reduced by almost one-third, summer shutdowns were implemented to conserve costs, savings were pursued in every phase of the operation and capital spending was drastically curtailed. However, capital spending is the key to further efficiency improvement, yet the proposed Superfund taxation, equivalent to about one-third of recent capital allocations, severely impacts the limited resources available. Additionally, a quarter of the capital spending over the past five years was spent on environmental improvements.

In summary, the proposed Superfund taxation (H.R. 5640) threatens the viability of the sole producer of strategically important nickel metal in the U.S. Even though it is one of the most efficient refineries in the world, it is struggling for survival in a depressed market in the face of subsidized foreign competition, increasing local and state taxation, and now, unjustified federal taxation.

AVERAGE GROSS REALIZED NICKEL PRICES
1970 - 1983 IN U.S. DOLLARS



SUMMARY—NICKEL METAL-REMOVAL FROM SUPERFUND FEEDSTOCK TAX

Nickel metal is used in many universal products such as coins, watches, household stainless items as well as prosthetic devices. In its metal form and most common use as an alloy with iron and steel, nickel is not considered a danger to public health.

Health effects.—Nickel metal is considered relatively nontoxic to man according to EPA, the National Academy of Sciences and the World Health Organization (WHO). Nickel is considered essential to animals and it is considered an essential element to humans. The FDA has identified nickel as Generally Recognized as Safe (GRAS), and concludes that: no evidence exists that demonstrates "nickel to be a hazard to the public as it is presently or is expected to be used in the future."

The only incidence of nickel related health problems to humans occurred prior to 1930 in non-U.S., heat-intensive refineries where workers were exposed to high concentrations of nickel compounds associated with other metallic compounds. Recent studies of nickel exposed workers have shown no increased incidences of health effects to humans.

Toxicity-environmental controls.—Like all substances, in certain high concentrations nickel compounds may be toxic but relative to other metals, nickel and its compounds have a low order of toxicity. Neither the WHO, the National Academy of Sciences nor EPA have recommended a drinking water standard for nickel. The daily oral ingestion of nickel in food is much higher than concentrations found in drinking water. As a result of its presence in foods and water, the average adult consumes 300–600 ug of nickel per day.

Nickel compounds, not nickel metal, are listed under Section 311 of the Clean Water Act as "hazardous substances." Almost all of the compounds are in the lowest toxicity release category.

As a metal present in the earth's crust, nickel is widely distributed in nature and therefore, may be detected in the soil at Superfund sites due to natural background levels. No evidence exists that nickel is a problem at Superfund sites.

Production.—The Port Nickel, Louisiana refinery is the only pure nickel refinery in the U.S. and is capable of supplying up to 20% of the U.S. supply. Presently, over one-half of the plant's production is exported which means that over 80% of the nickel consumed in the U.S. is imported. (The U.S. consumes over 200 million pounds of nickel per year.)

In production since 1975, the Port Nickel plant has struggled to remain even marginally economic. Since all metal prices are established on the world market, any additional costs placed on domestic production, such as taxes, cannot be passed through to either the domestic or foreign customer, therefore jeopardizing the facility's ability to compete in the world marketplace.

No solid waste is disposed of at Port Nickel. Because of the precious metal content, the residue is sold and recycled elsewhere.

Tax.—Current law taxes nickel and H.R. 5640 suggests taxing nickel metal at $14.94 per ton. Clearly, a review of the rationale for taxing this metal is warranted in light of its relatively nonhazardous nature and the unique status of the U.S.'s only pure nickel refinery.

NICKEL METAL—PROPOSED SUPERFUND FEEDSTOCK TAX

The majority of nickel metal is used in stainless steel and is not considered an environmental or human health problem. Nevertheless, it is subject to the superfund feedstock tax under CERCLA. If the purpose of CERCLA is to tax "building blocks" used to create hazardous wastes, the taxation of nickel metal cannot be justified in light of its relatively nontoxic, nonhazardous nature.

Background.—During the 1980 Superfund debate Congress considered and exempted certain metals including, copper, lead and zinc from the Superfund taxable list by substituting compounds. Even though the case for nickel is similar to that of the other metals exempted, Congress did not consider nickel and it simply remained on the list of taxable substances. Therefore nickel was not identified as a metal to be specifically studied under Section 301 of CERCLA and a "rationale" paper does not exist to justify its taxation.

In reviewing the EPA "rationale papers" for taxing other metals, however, it can be assumed that because specific nickel compounds are considered hazardous, a broad generalization is made that all nickel, regardless of form or concentration, is hazardous. Such a sweeping generalization should not be made. This paper attempts to show why nickel metal should not be a taxable item under Superfund.

Health effects of nickel

Nickel is widely distributed in nature in various forms. It is present in sea water and most of our natural vegetation. The average farm soil in the U.S. contains about 30 ppm of nickel and therefore grains, vegetables and fruits, contain nickel. It is an essential element for many animals and it is considered an essential and beneficial element to man. As a result of its presence in both foods and drinking water, it is estimated that the average adult consumes 300 to 600 ug of nickel per day.

The Federal Food and Drug Administration has identified nickel as Generally Recognized As Safe (GRAS), and concludes that: no evidence exists that demonstrates "nickel to be a hazard to the public as it is presently or its expected to be used in the future". The World Health Organization (WHO), and the National Academy of Science consider nickel metal relatively nontoxic to man. Furthermore, neither of these organizations nor EPA has recommended drinking water standards for nickel. The National Academy states that nickel metal occurs in trace amounts and poses no toxicity problem because it is relatively insoluble and absorbtion is low.

Like many other substances, any concern with nickel in the environment is not with its pure metallic form, but may arise from specific chemical compounds that are formed from nickel. The World Health Organization in its report on trace elements noted that the range between the "required" and the toxic levels of certain nickel compounds is extremely wide and states that it is not aware of any cases of human toxicity. Nickel salts, like copper salts, are more soluble and are considered more toxic than their metallic forms. However, even nickel salts require large oral doses to produce toxic effects in animals. Consequently, no evidence exists that nickel or nickel salts administered orally pose a health risk.

Dermatitis can result from skin exposure to nickel metal and nickel compounds. This can occur in the general public to persons sensitive to nickel. It should be noted that the literature reports certain incidences of chronic health effects in nickel refinery workers. Such incidences occurred, however, prior to 1930 in non-U.S. refineries that used a pyrometallurgical, heat-intensive process where high exposure to certain nickel compounds associated with other metallic compounds such as arsenic, were linked to nasal and lung cancers. Not only are such process and specific compounds not in existence in the U.S., but recent studies of nickel exposed workers indicate that no evidence exists that nickel in the workplace or general environment constitutes any health risk.

Environmental standards

Section 311 of the Clean Water Act lists five nickel compounds as "hazardous substances" but does not list nickel metal. The five compounds and their reportable quantities are as follows: Nickel ammonium sulfate, 5,000 lbs; nickel chloride, 5,000 lbs; nickel hydroxide, 1,000 lbs; nickel nitrate, 5,000 lbs; nickel sulfate, 5,000 lbs.

Four of the five compounds are in the least harmful class of "hazardous substances" whereby EPA has determined that discharges directly into water do not even have to be reported unless in quantities of 5,000 lbs. or greater.

EPA has also established water quality criteria for nickel but qualified their numbers as representing that "all concentrations are expressed as nickel, not as to the specific compounds tested." Therefore, it is difficult to determine which nickel compounds EPA has determined are of regulatory concern. The EPA has established 13.4 ug/1 of nickel as a water quality criteria to protect human health. However, this level has an admitted safety factor of 1000 and is based on a single rat study. Given the fact that the average adult drinks two liters of water per day, the criteria level is still approximately 22 to 45 times less than the amount the average adult ingests per day (300–600 ug/1). In fact, the criteria is equivalent to the amount of nickel inhaled from smoking 40 cigarettes per day.

Evidence at Superfund sites

In reviewing the "Analysis of Substances Exempt from CERCLA Tax pursuant to 301(a)(1)(H)" prepared for EPA by ICF, Inc. it is difficult to determine if nickel or nickel compounds have been found to be a problem at any Superfund site.

ICF's review of substances found at 12 of the mining waste sites (Exhibit 2–2) does not show nickel as being present at any mine waste sites. The results of the inorganic sample analysis of soil and water indicated that nickel was "detectable" at numerous sites but did not specify concentration levels, background levels, nor whether nickel compounds posed any contamination problems warranting cleanup. Because nickel is one of the most abundant elements in the earth's crust, it is inevitable that soil and water samples will contain certain levels of nickel. The concentrations and the source of the nickel present must be determined before any alleged

"Superfund problems" can be made. There seems to be no evidence to show that nickel in any form has created a Superfund site listing.

Furthermore, the only pure nickel refinery in the country recycles its waste to extract the precious metals. There simply is not a major nickel industry in this country generating wastes that are harmful under Superfund.

Consumption—Uses

	Percent
Stainless steel and metal alloys	86%
Electroplating	10%
Chemicals and catalysts	4%

Nickel metal as is evidenced by the U.S. Stockpile target of 200,000 tons is a strategic and critical material in the U.S. economy. The majority of nickel is used in both nonferrous and ferrous alloys and stainless steel, which comprises approximately 86% of the West's consumption. The corrosion resistant nonferrous alloys critical to certain aerospace military and electronic applications. Stainless steels and superalloys are important elements in making heat resistant processing equipment for refining oil, for controlling stack gases in power plants and as critical components of jet engine parts. While nickel alloy steels are the basis of our industrial and military equipment, stainless steels are also commonly found in many household items such as kitchen flatware, utensils and food processing equipment. Since nickel alloys are corrosion resistant, they are used in seawater applications such as water handling systems and in ships cladding.

Another 10% of nickel metal is used in the electroplating business. Nickel is fed into a processing system where it is deposited and coats the outside of the product. Examples of electroplated products include automobile trim, household toasters and faucets.

The remaining 4% of nickel is used by the chemical industry in producing nickel salts, which are often used as catalysts for the manufacturing of other chemicals.

U.S. production of nickel

260 million lbs.—1983 U.S. Nickel Consumption.
8.6 million lbs.—Nickel Salts (4%) U.S. Consumption.
80 million lbs.—1983 AMAX Production (60% of AMAX Nickel is Exported).

The AMAX Port Nickel Refinery in Louisiana is the only pure nickel refinery in the United States and is capable of supplying up to 20% of the United States' domestic nickel supply. At capacity, it produces around 80 million pounds of nickel per year. Since one-half of this is exported, AMAX has only a small corner of the U.S. market. The refinery has traditionally employed approximately 500 people.

AMAX purchased Port Nickel in 1971 in an effort to facilitate the Company's entry into the nickel business and spent three years rehabilitating the refinery by installing new processing and environmental equipment. Upgrading the plant included adding a new hydrometallurgical process which offers several advantages over the older pyrometallurgical, heat intensive process; it is less energy intensive, can accommodate refining a variety of metals—and generally avoids most of the usual environmental problems. Other new support facilities include a new water treatment system and an energy saving fuel system. Since the refinery residues (wastes) contain precious metals, Port Nickel is selling all of the residues from the plant for the ultimate reclamation of the precious metals. Therefore, no solid waste is discarded at Port Nickel today.

Since production began in 1975, the plant has remained an economically marginal operation. Nickel prices have not improved, but have dropped over the past few years.

The plant is not dependent on a single source of raw material; nickel ore is mined overseas and arrives at Port Nickel from Botswana, Australia and New Caledonia. While there are a few known nickel resources in the U.S. at the present time, they are now economic for mining purposes.

Over 80% of the U.S. consumption of nickel is from foreign sources such as Canada, Australia and Norway.

Like all metals, the price of nickel is established by the world market. Any additional costs cannot be added on to the sales price if a producer is to remain competitive in the world marketplace. Since AMAX sells nickel both domestically (40%) and for foreign consumption (60%), any domestic tax cannot be passed through to the foreign purchaser. Any effort to equalize that tax must take into account both the import and export status of the metal.

NICKEL: DATA CITATIONS

FOOD AND DRUG ADMINISTRATION—FINAL RULE, DECEMBER 12, 1983

"The FDA is affirming that nickel is generally recognized as safe (GRAS) as a direct human food ingredient. . . . The Select Committee on GRAS concluded that: "There is no evidence in the available information on elemental nickel that demonstrates, or suggests reasonable grounds to suspect, a hazard to the public when it is used at levels that are now current . . . or might be expected in the future."

EPA—NATIONAL REVISED PRIMARY DRINKING WATER REGULATIONS (ANPR OCTOBER 5, 1983)

"The World Health Organization has not established a recommended action level for nickel. The National Academy of Science does not view nickel in drinking water in terms of current levels as a cause for concern. In view of the unusually low concentrations of nickel in drinking water and in view of the limited health effects aspect, the establishment of a limit for nickel in drinking water is not warranted."

NATIONAL ACADEMY OF SCIENCES—DRINKING WATER AND HEALTH, 1977 AND REAFFIRMED, 1980, VOL. III

"The toxicity of nickel or nickel salts through oral intake is low, ranking with such elements as zinc, chromium and managanese . . . nickel salts exert their action by gastrointestinal irritation and not by inherent toxicity.

. . . the cause of this relative nontoxicity appears to be a mechanism in mammals that limits intestinal absorbtion of nickel . . . nickel also has little tendency to accumulate in tissue during lifetime exposure."

WORLD HEALTH ORGANIZATION, TRACE ELEMENTS IN HUMANS. NICKEL. WHO TECH. REP. SER. NO. 532:40, 1973

". . . the range between the required and toxic levels of nickel is extremely wide and WHO is not aware of any cases of human toxicity."

SECTION 113, CLEAN WATER ACT (40 CFR, SEC. 117.3)

EPA has listed five nickel compounds, not nickel, as hazardous substances under the CWA. These substances are therefore the compounds listed under CERCLA requiring notification of reportable quantities at the following levels:

Nickel ammonium sulfate, 5000 lbs. nickel chloride, 5000 lbs. nickel hydroxide, 1000 lbs. nickel nitrate, 5000 lbs. nickel sulfate, 5000 lbs.

(EPA established these compounds under Section 113 as a further description of the listing of "nickel and compounds," (along with 64 other "pollutants"), as priority pollutants under the settlement agreement, developed and finalized between EPA and NRDC, pursuant to a 1976 consent agreement. It was in the 1977 CWA amendments that Congress added language incorporating by reference the list of 65 pollutants, calling them "toxic pollutants.")

AMBIENT WATER QUALITY CRITERIA FOR NICKEL, EPA, OCTOBER 1980

Human Health Criteria—13.4 ug/1 and 100 ug/1 (based on safety factor of 1000 and data from single rat study). Acquatic Life Criteria—1,100 ug/1-hardness and concentration levels.

"Elemental nickel is seldom found in nature and is not soluble in water as the pure metal, many nickel salts are highly soluble in water." . . . nickel compounds soluble in water are nickel hydroxide, nickel monosulfide, nickel oxide, nickel chloride, nickel nitrate, and nickel sulfate.

Because of the variety of forms of nickel that can exist in bodies of water and the various chemical and toxicological properties of these forms, EPA has developed a water quality criterion that is at best stated in terms of total recoverable nickel. EPA states, "the forms of nickel that are commonly found in bodies of water and are not measured by the total recoverable procedure, such as a part of minerals, clays and sand, probably are forms that are less toxic to acquatic life and probably will not be converted to the more toxic forms".

ZINC

RATIONALE AGAINST TAXATION

There is no justification for taxing zinc metal on the feedstock list as proposed by H.R. 5640. Zinc metal is not considered hazardous but is instead, considered an essential nutrient to man. Zinc chloride and zinc sulfate would be a more appropriate subject for taxation. Furthermore, the world's zinc market is so depressed that a tax at this time could severly impact the already ailing domestic zinc industry. The following is a brief description of the environmental and health impacts of zinc and an overview of the domestic zinc industry.

ENVIRONMENTAL AND HEALTH EFFECTS

There is substantial scientific data documenting zinc's relatively benign nature.

". . . zinc is relatively non-toxic and is an essential trace element." (EPA, ANPR, October 5, 1983.)

"Zinc interacts with other trace metals and has a protective action against toxicity of cadmium and lead . . ." (EPA, 1980 Ambient Water Quality Criteria for Zinc.)

". . . zinc oxide and zinc sulfate are generally recognized as safe . . . as direct human food ingredients and . . . zinc chloride is safe as an indirect food ingredient." (FDA, FR 47441 ff, October 26, 1982.)

". . . extensive studies indicate that feeding zinc oxide or zinc sulfate at levels in excess of 500 mg of the salt per kg has no consistently adverse effect." (FDA, FR 47441 ff., October 26, 1982.)

The Select Committee concluded there was no evidence of carcinogenicity in rat studies involving the feeding of excessive levels of zinc oxide, zinc acetate, zinc carbonate and zinc sulfate.

STATE OF THE AMERICAN ZINC INDUSTRY

Zinc is a vital material, as evidenced by the Government's current stockpile target of 1,425,000 tons. Its main uses are in galvanizing to protect steel from corrosion, in die castings (where usage has been declining because of their decreased use in automobiles), and in brass. The U.S. has ample reserves of zinc and despite some older and less efficient plants, mining and smelting technology is generally competitive with that of foreign producers.

Since 1969 there has been a severe erosion of this country's competitive position in the world zinc market. Following widespread closures, U.S. zinc production and consumption stabilized for a few years in the early 1970's. U.S zinc consumption dropped sharply in the 1975 recession, however, and only began to return to prerecession levels in mid-1983. An excessive flood of zinc metal imports at distressed prices during the 1976–79 period robbed U.S. producers of a chance to fully recover from the 1975 recession. Demand for zinc weakened substantially from 1979 through mid-term 1983, when the automobile industry recovery began to increase demand and zinc consumption increased 12% over depressed 1982 levels. Overall domestic production, however, still fell below 1982 levels.

Below is a brief review of what has happened in the American zinc industry since 1970:

In 1970, the United States produced over 1 million tons of zinc metal a year. In 1983, it produced less than one-third that amount, about 295,000 tons.

Ten U.S. zinc smelters have been closed since 1969. In 1969 this country had 14 zinc smelters; in June 1980 it had six. It now has 4 with a fifth scheduled to reopen after being closed for more than a year.

A decade ago this country was dependent on foreign sources for 20–25 percent of its zinc metal; in 1983 the U.S. was 70 percent dependent.

In 1982 and 1983, U.S. zinc average prices were 38.5¢/lb. and 42.0¢/lb., respectively, both of which were depressed years. A recent Stanford Research Institute analysis concluded that less than half of the Western World's zinc producers can make a profit at 40¢/lb. In inflation adjusted dollars, these zinc prices were at their lowest level in 15 years and were 3-4¢/lb. lower than in 1977 when U.S. producers collectively suffered a before-tax loss.

1984 zinc prices improved, averaging 49–50¢/lb. This recovery is the result of increased automobile demand—a major market for zinc.

ZINC AND HUMAN HEALTH

Concern is growing within the medical community that the American diet is deficient in zinc—a trace element essential to human health. The importance of zinc is highlighted in the attached articles; the list below summarizes the beneficial uses of zinc and problems associated with zinc deficiency.

ZINC USES AS A HEALTH TREATMENT AID

Atherosclerosis (hardening of the arteries).
Urinary frequency, irritation, infection, and difficulty.
Prostate irregularities.
Male infertility and impotency.
Cold prevention.
Infection.
General immunity.
Necessary for DNA and RNA functioning and reproduction.
Surgical and wound healing.
Burns.
Sickle cell anemia.
Crohn's disease (a debilitating ailment of the gastrointestinal tract).
Acrodermatitis enteropathica (AE)—a rare and often fatal childhood disorder resulting in diarrhea, vomiting, hair loss and severe skin outbreaks.
Body odor.
Canker sores.
Smell and taste perception.
Night blindness among alcohol abusers.
Lead absorbtion.
High cholesterol.
Acne.
Skin ulcers and irritation (calamine lotion is zinc oxide with a small amount of ferric (iron) oxide.
Infant formula.
Dwarfism/slow growth.
Thymic atrophy.

PROBLEMS ASSOCIATED WITH ZINC DEFICIENCY

Atherosclerosis (hardening of the arteries).
Prostate irregularities.
General immunal deficiencies.
Multi-generational effects if mother zinc deficient during pregnancy.
Male and female infertility.
Slow fetal growth.
Abnormal fetal development.
Prolonged child birth labor.
Dwarfism.
Cancer of the esophagus.
Delayed wound healing.
Chronic skin ulcers/lesions.
Malnutrition.
Pulmonary infection, including TB.
Uremia.
Anorexia.
Impaired taste and smell.
Pica.
Hypogonadism.
Impotence in renal dialysis patients.
Intention tremor.
Jitteriness.
Diarrhea.
Baldness.
Dermatitis.
Growth Retardation.
Depression.
Night blindness.
Hair and nail problems.

STATE OF THE AMERICAN LEAD INDUSTRY

Lead is a vital material, as evidenced by the Government's current stockpile target of 1.1 million tons. Its main uses are in batteries, as gasoline additives (where usage is declining because of EPA's lead phasedown regulations), in paints and in ammunition. The U.S. has vast reserves of lead, efficient mining and smelting technology, and U.S. producers compete favorably with foreign producers. Traditionally, the U.S. is a small net importer of lead metal.

The lead metal market recovered from the 1975 recession and demand was very strong in 1977–78. However, demand began to weaken in 1979 and has been declining ever since. Today, U.S. producers are experiencing one of the most severe slumps in the history of the lead industry. Specifically:

U.S. lead prices have dropped dramatically from an all-time high of 61¢/lb. in October 1979 to 34¢/lb. today. In inflation adjusted dollars, lead prices during 1983 were lower than at any time since 1934 when the average price was 9.6¢/lb.

The recent increase in lead prices is the result of anticipated shortages given the ongoing strikes at St. Joe's and AMAX's Missouri lead mines—not an improvement in underlying demand for lead.

Domestic producers' shipments (deliveries) of lead to U.S. customers were lower in 1982 than in any year since 1967, with the exception of a modest increase over 1981. 1983 shipments increased about 13% over 1982 levels, but 1984 shipments are expected to be lower than 1981 levels.

Lead stocks at U.S. plants have been very high since 1979. Stocks at the end of May 1984 are greater than the all-time high levels experienced during the 1975 recession.

Most forecasters predict a continued flat demand for lead as there are inadequate new markets on the horizon sufficient to offset the declining use of lead in other products, principally in gasoline.

Thus far, the lead industry's environmental expenditures have been moderate, but EPA has promulgated an ambient air lead standard which the industry as a whole lacks the technology to meet. Similarly, OSHA has promulgated an extremely costly and technologically infeasible in-plant lead standard. Combined, the EPA and OSHA lead standards threaten to close down a large part of the American lead industry.

DISSENTING VIEW ON INCLUSION OF ALUMINUM, NICKEL, AND ZINC AS TAXABLE SUBSTANCES

This bill adds 20 previously untaxed substances to the list of those subject to the Superfund tax. Two of these, aluminum and zinc: and one already subject to the tax, nickel, are not properly included since they are naturally occurring, common and nontoxic. To suggest, as some of my colleagues do, that in processing ores to refine these metals hazardous substances may be created and this is a proper basis for listing them, raises the question of whether the entire periodic table of elements should be taxed. For the feedstock tax, only the soluble salts of copper are listed as hazardous: cupric oxide, cupric sulfate, and cuprous oxide. Copper metal, although sharing the same nonhazardous characteristics as aluminum, nickel and zinc (we all drink water which flows through copper pipes), when ranked by experts, is considered relatively more "toxic" than these metals, because its salts are relatively more toxic, yet the Committee properly rejected taxing copper metal in favor of these salts. To suggest that these elements are "found" at Superfund sites and hence should be taxed, without any assessment of the hazard posed by them is scientifically unsound and extremely unfair to the beleaguered domestic minerals industry.

These metals are used in numerous everyday household items and pose no threat to human health or the environment. To place them in the company of most of the other substances on the list, using the criteria cited by my colleagues elsewhere in this report, is tantamount to an admission that the substances taxed need bear little relationship to the problem. Following is a point by point discussion of the criteria cited, as they would apply to these metals.

Criterion No. 1: The generation of significant volumes of hazardous wastes during the manufacture of the taxable substance.

Comment: Solid wastes from mining and mineral processing are still under study by EPA pursuant to section 8002 (f) and (p) of the Solid Waste Disposal Act to determine what wastes, if any, should be subject to hazardous waste regulation under RCRA. These "significant volumes" are the high volume and low toxicity wastes cited in the Office of Technology Assessement report (Technologies and Management Strategies for Hazardous Waste Control (1983)) which were generally recognized as non-hazardous. They are essentially either granular rock remaining after metallic minerals have been removed or a tightly bound cinder-like slag remaining from the smelting process.

The Committee bill has explicitly recognized the obvious distinctions between the high volume/low toxicity mining industry wastes and those with high toxicity characteristics in exempting them from this bill's proposed waste-end tax until the conclusion of the current EPA studies of mining wastes and enactment of special legislation to deal with what is essentially ground-up rock.

Criterion No. 2: "The hazardous nature of the taxable substance in any of its forms (including its intermediate or final products)."

Comment: This criteria is so broad that any metal ever combined in the chemical manufacturing process with a known toxic chemical would be captured. Zinc, nickel and aluminum are generally recognized as inherently non-toxic to man. Where compounds containing these metals have been listed as hazardous under various Federal regulations, it is because of the presence of chemicals that are toxic in and of themselves, e.g. arsenic, cyanide, ammonium chloride, etc. It is misleading to attribute the toxic effect of certain zinc salts, for example, to the zinc portion of the compound and is analogous to saying that sodium cyanide is toxic because it contains sodium.

Criterion No. 3: "The capability of the taxable substance to increase the hazard potential of other substances (e.g. acids may accelerate the release of other hazardous wastes into the environment)."

Comment: This criterion does not apply to zinc, nickel, or aluminum because these metals have no catalytic capabilities or properties, unlike acids.

Criterion No. 4: The production of the taxable substances in significant volumes.

Comment: Since they are absolutely essential to the manufacture of almost everything, metals, including aluminum, nickel and zinc are produced in large volumes for use in numerous processes such as galvanizing steel, making cans or steel alloys. Zinc, aluminum, and nickel were included not because of a showing that they are hazardous, but solely to raise revenue because of their production volume.

Criterion No. 5: "The taxable substance was found, in its raw, intermediate, or final product forms at known Superfund sites identified and evaluated by EPA."

Comment: This could apply to any element in the earth's crust. A significant percentage of the earth's crust is aluminum. Nickel and zinc are also common elements in detectable amounts as are all metals. Moreover, nonferrous metals are the most easily detectable substances because of their relative insolubility and inherent persistency. Consequently, there is always a reasonable probability that metals such as zinc, nickel, and aluminum will be detected. This is no way an indicator that they are occurring at Superfund sites in significant concentrations or that they pose any danger to human health or the environment. Mere presence of inherently non-toxic metals cannot be reasonably construed to mean that there is a problem.

Criterion No. 6: "Hazardous wastes generated in the manufacture of the taxable substance or its intermediate and final products have been found at known Superfund sites identified or evaluated by EPA."

Comment: The solid wastes from mining and mineral processing are and must, because of their inherently high volume, be deposited cloee to the processing site. These wastes clearly are not candidates for "midmight dumping". Again, mining and mineral processing wastes are under study by EPA pursuant to section 8002 (f) and (p) of the Solid Waste Disposal Act. As mentioned above, this Committee has acted to respect the integrity of that process by excluding mining wastes from the waste end tax until those studies have been completed, evaluated by EPA, and the Congress has acted on the results.

Criterion No. 7: "The enactment of current law established a definition of 'hazardous substance' and the taxable substance at issue is covered by that definition."

Comment: To use this criterion as the basis for a listing is to defy common sense. We cook in aluminum pots, eat with stainless steel flatware which is 25% nickel and take vitamins laced with zinc. "Bootstrapping" of this sort without consideration of the merits can lead to absurd results. For example, zinc is listed as a "toxic pollutant" under the Clean Water Act because in developing standards under the Safe Drinking Water Act EPA found that in high concentations it can make drinking water taste unpleasant. Because it was on the "Safe Water" list, developed with taste and asthetics are two criteria, zinc was picked up on the Clean Water list, and by this bill will be picked up on the Superfund taxable substance list.

As a final note, the Committee report states that ". . . one of the primary factors affecting the selection of taxable substances is the generation of hazardous wastes during the manufacturing process. Such wastes are in turn the causes of contamination at the sites the Superfund program must address."

The report then cites, as an example, "Waste generated in the processing of zinc ore contain such hazardous substances as lead, cyanide and mercury." These two statements when taken together are a further example of an attempt to marry a reasonable statement to a second statement that is so broad that it lacks any definition.

For example, the statement, which refers to waste streams from the zinc smelting and refining process, is misleading because it presumes the toxicity of all these metals, irrespective of the chemical form in which they occur and their relative concentrations. Moreover, in the U.S. there are now only four operating zinc smelters, and a fifth has recently announced its intention to reopen after being closed for over 16 months. Another, example, the residues from the Port Nickel, Louisiana, nickel refinery, the only pure nickel refinery in the United States, is recycled to recover its remaining precious metal content.

These smelters' waste streams are subject to EPA regulations under the Clean Air Act and Clean Water Act. Most waste streams which contain substantial quantities of metals are recirculated back to other recovery units in order to avoid their loss. The remaining "cinder-like" slag contains small amounts of unrecoverable metals and inorganic salts. The relatively low metal concentrations in the slag are not likely to contaminate ground water or the environment because of low solubility. Consequently, the threat to the environment is minimal and no hazard is posed to human health.

RICHARD SHELBY.
BILLY TAUZIN.
DAN COATS.
MIKE G. OXLEY.
DON RITTER.

SUPPLEMENTARY VIEW ON REMEDIAL ACTION STANDARDS

Section 107 of the bill amends section 104(c)(4) of the Act to require EPA to follow the most stringent applicable standard for a hazardous substance, pollutant or contaminant in cleaning up sites. I agree with my colleagues who failed separate views in this report on the inefficiency of this approach because of its inherent inflexibility.

The circumstances triggering a "Superfund cleanup response" under Section 104 of the Act, is the release or substantial threat of a release of a hazardous substance, or the release or substantial threat of a release of any pollutant or contaminant which may present an imminent or substantial danger to the public health or welfare. This is the essence of Superfund, to remove or contain the threat. However, to mandate going beyond protection of human health and the environment, is to invite an inefficient allocation of funds.

Under the bill, cleanup is not site-specific or site-relevant; i.e., very stringent standards are mandated for all sites regardless of the extent of contamination, location of the site, or projected land usage. The so-called "waiver" of these standards in the bill applies only to sites for which no responsible party can be identified and for which, therefore, Superfund monies must be used. This waiver is only triggered once EPA has determined that a site would "consume such a disproportionate share of the Fund resources as to have the effect of deferring or preventing remedial action at other facilities which pose a significant greater threat to human health and the environment" (new section 104(c)(4)(B)(iv)(II)). The waiver does not provide flexibility for cleanup in all other circumstances, including those sites for which a responsible party has been identified and has proceeded to cleanup the site. The bill's stringent cleanup standards apply at these sites without exception.

Some sites may get "gold plated" and perhaps pointless remedial action, while more hazardous situations go wanting. To place the Administrator in the position of having to determine whether the "most stringent" cleanup will consume inordinate Superfund resources at the expense of other sites, under the guise of a "waiver" is to invite lawsuits against a hapless Administrator trying to stretch his resources.

BILLY TAUZIN.
DON RITTER.

1984 U.S. INDUSTRIAL OUTLOOK

Prospects for over 300 industries

U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

Bureau of Industrial Economics
Edward K. Smith, Director

January 1984

Lead = p 19-3
Zinc = p 19-6

19

Nonferrous Metals

COPPER

Current Situation

In spite of a significant increase in refined copper consumption, domestic producers found 1983 a difficult year. The recovery in the producing sector, from the near disastrous levels of 1982 was hampered by a continuation of relatively low prices caused largely by a very sharp increase in imports. Unlike many metals that are significantly dependent on demand from one or two major consuming industries, copper use is dispersed into almost all economic sectors. Total consumption of refined copper in 1983 increased to 2.1 million tons, from the severely depressed levels of 1982. In spite of this increase, which was mostly the result of the recovery in the automotive and construction sectors, 1983 consumption remained below the average consumption level attained during the past 5 years.

Copper is widely traded on the New York Commodity Exchange (COMEX) and the London Metal Exchange (LME). The prices established on these exchanges reflect world supply-demand conditions and directly influence U.S. and world producer prices. Several countries that rely heavily on copper as a major source of foreign exchange are reluctant to cut production and in fact tend to increase output as prices fall in an effort to stem the erosion of needed currency. This situation was evident in both 1982 and 1983. The lack of market responsive production policies on the part of foreign producers directly contributed, in 1983, to a world oversupply condition and an increase in world refined inventories, which in turn retarded price recovery. In 1983, the International Monetary Fund (IMF) agreed to help several foreign producers offset 1982 revenue declines, which were in part caused by their own high levels of production. This support by the IMF and other loan and financing policies caused U.S. producers to lodge strong protests with Congress.

1983 Profile

Primary Copper

SIC Code: 3331

Industry data	
Value of industry shipments (mil $)	4,404.4
Value added (mil $)	n.a.
Total employment (000)	7.0
Total number of establishments[1]	27
Number of establishments with less than 20 employees[1]	0
Percent of industry shipments accounted for by 4 largest companies[1]	87
Major producing states accounting for largest percent of industry shipments: AZ (67%), UT (14%), NM (10%)	
Product data	
Value of product shipments (mil $)	3,384.5
Value of exports (mil $)	50.2
Value of imports (mil $)	860.4
Exports as a % of shipments	1.5
Imports as a % of new supply[2]	20.3
Imports as a % of apparent consumption[3]	20.5

[1] 1977 Census of Manufactures.

[2] New supply is the sum of product shipments plus imports.

[3] Apparent consumption is the sum of product shipments plus imports less exports.

Source: Bureau of the Census and Bureau of Industrial Economics. Estimates by Bureau of Industrial Economics.

Early in 1983, copper prices recovered from the extremely depressed levels of 1982. COMEX prices rose from about 67 cents a pound in December 1982 to about 79 cents in May 1983. The increase resulted from a strong improvement in demand, heavy Chinese buying in Europe, and renewed speculative interest. Despite the possibility of a domestic strike, prices stalled in June and began to decline, falling below 65 cents in October. Throughout the summer and early fall, the market ignored numerous bullish factors, such as improved demand, strikes, and political unrest in foreign producing countries, and seemed to react only to bearish supply factors. Overall, U.S. producer prices in 1983 averaged about 78.0 cents a pound, up 7 percent from 1982. Even with improved price levels, most domestic and foreign production facilities remained unprofitable during the year.

The world oversupply caused foreign producers to aggressively seek an outlet for their material. Refined imports rose about 110 percent, to about 600,000 tons, in 1983. Imports from Chile, whose production facilities are either government owned or controlled, soared 285 percent during the first 5 months of 1983 compared to the same 1982 period. Imports from other countries also increased during these 5 months: Zaire, up 85 percent, Zambia, up 41 percent, Canada, up 29 percent. A large portion of these imports were not consumed during 1983, causing a drastic rise in visible stocks (COMEX stocks rose 86,000 tons or 31 percent during the first 7 months) and unreported stocks. Domestic exports remained insignificant during the year.

Domestic producers were unable to take advantage of demand increases because of the high level of imports, relatively low prices, and strikes, which began in July and August. Domestic production increased a marginal 2 percent in 1983. Although several producers, notably Kennecott and ASARCO, reached new labor contracts in July, others, notably Phelps Dodge, were struck by the United Steel Workers. Attempts by

hold Throughout

Refined Copper in the United States

(in thousands of short tons)

Item	1978	1979	1980	1981	1982	1983¹	1984¹	1988¹
Consumption	2,413	2,380	2,053	2,232	1,828	2,100	2,210	2,390
U.S. supply	2,060	2,219	1,896	2,246	1,868	1,910	1,950	2,100
Primary	1,597	1,670	1,351	1,702	1,353	1,460	1,500	1,600
Secondary	463	549	545	544	515	450	450	500
Producer inventories	188	78	54	159	295	250	275	—
Imports								
Refined²	457	237	505	364	285	600	440	325
Percent of consumption	18.9	10.0	24.6	16.3	15.9	28.5	22.0	13.6
Scrap unalloyed	23	24	25	30	31	50	30	25
Exports								
Refined	101	82	16	27	34	30	30	35
Scrap unalloyed	54	59	68	55	60	55	60	55
U.S. Producer Price³ (cents per pound)	65.8	92.2	101.3	84.2	72.8	78.0	—	—

¹ Estimate.
² General imports.
³ *Metals Week* average, in cents per pound.

management to operate struck facilities were met with strong and, at times, violent worker resistance. Hardest hit by these strikes and the effect of high import levels were the many small and remote communities that rely almost solely on the copper economy. The mining communities of Arizona were especially affected during 1982 and 1983.

Outlook for 1984

The demand for copper from the durable goods, automotive and construction sectors is expected to increase in 1984, especially during the second half. Overall, refined copper consumption should rise about 5 percent, to 2.2 million tons, by year-end. Although the percentage increase appears slightly encouraging, the tonnage consumed will remain below the 1978-81 average. A signficant change in interest rates—a major factor in automotive and construction activity—could change this expectation. Higher rates would probably cause demand to fall below this projection, while lower rates could result in a sharp demand increase beyond that envisioned.

Domestic producers will enter 1984 in a weak financial position and will again be burdened by excessive inventories. The high level of 1983 imports and resulting inventory positions will prevent domestic production increases during the first half of 1984. During the second half, a price recovery could occur as other market economies recover and world inventories decrease. Prices approaching 85 cents are likely by year-end. Although domestic inventories will remain a problem throughout 1984, domestic producers are expected to increase production about 2 percent, to 1.95 million tons, in response to higher price levels.

Imports are expected to decline to more traditional levels during 1984, when they should drop about 27 percent, to 440,000 tons. If, for whatever reason, imports do not decline significantly from 1983 levels, domestic producers will face serious problems. A high level of imports would probably force U.S. producers to either cut back or close production facilities. Exports of refined copper are expected to be insignificant during the year.

Decisions on several environmental issues are likely to occur in 1984. The outcome of these decisions could be of significant importance to the domestic copper industry and affect the in-

Shipments of Copper-Base Mill and Foundry Products

(millions of pounds)

	1978	1979	1980	1981	1982
Total mill and foundry products	6,174	6,688	5,823	5,987	4,846
Brass mill products, total	2,679	2,981	2,475	2,622	2,014
Unalloyed total	989	1,111	990	927	767
Rod	107	104	146	123	101
Sheet	225	243	213	206	134
Tube	657	764	631	598	532
Alloyed total	1,781	1,870	1,485	1,695	1,247
Rod	860	885	696	765	565
Sheet	775	831	670	792	582
Tube	146	154	119	138	100
Copper wire mill products, total	2,775	3,048	2,814	2,847	2,393
Bare	335	236	296	328	267
Insulated:					
Communication	659	845	805	755	594
Other	1,781	1,967	1,713	1,764	1,532
Brass and bronze foundry, total	565	593	487	471	405
Copper base powder, total	65	66	47	47	34
Unalloyed	45	49	36	40	28
Alloyed	20	17	11	7	6
Brass mill imports, total	435	377	248	442	334
Unalloyed	146	141	89	118	104
Alloyed	289	236	159	324	230
Percent of brass mill shipments	16	13	10	17	11

¹ Bureau of Industrial Economics.

dustry's future competitive position. New regulations controlling acid rain and arsenic would cause western smelter costs to rise. The copper industry continues to incur significant costs for pollution control facilities. Phelps Dodge, for example, will spend about $130 million on its Morenci, Arizona, smelter to bring it into compliance with state and Federal clean air regulations.

Long-Term Prospects

For the past decade, the intensity of copper use, when measured in tons per dollar of output of the consuming industry, has been declining in about 70 percent of the copper-using sectors. These long-term declines result from substitution, miniaturization, and automotive downsizing. In addition, an analysis of copper use indicates that few, if any, significant new markets have been developed. The downward trend in copper consumption is expected to abate somewhat during the 1980's. Between 1984 and 1990 consumption is expected to grow at a compound rate of about 2 percent. In the shorter term, copper consumption could experience a significant upturn in 1985 if interest rates do not rise and the European economy recovers.

Fiber optics are expected to make increasing inroads into the copper cable telecommunications market between now and 1988. Several fiber-optic systems have been installed, and more are planned. The increased use of fiber optics will retard copper consumption in this market but is not expected to have a significant effect until the 1990's. During the 1990's, it is likely that copper will permanently lose a significant portion of the telecommunications market.

The prospects for the domestic copper-producing industry during the next several years are unclear. U.S. producers have been deeply injured by the events of 1982 and 1983. They have incurred substantial losses and have been forced to increase their debt burdens. In addition, domestic producers will continue to face costly environmental regulations and competition from government-owned or -subsidized foreign producers, whose production policies tend to ignore weak market conditions. The health of the domestic copper industry will directly depend on an increase in price above current levels. Any meaningful increase in price is unlikely to be sustained without a corresponding increase in demand. If prices cannot be sustained above $1.00 a pound within the next 2 years, it is likely that domestic producers will permanently close several higher cost facilities.

With capacity expansion lagging or nonexistent, and existing plant and equipment not actively being replaced or modernized, spot shortages of copper could occur if free market economies enter an expansionary phase. Given the long lead times involved in developing mineral deposits, serious domestic copper shortages are likely by the mid-1990's if development does not occur or if several domestic facilities close permanently.—*Robert C. Reiley, Office of Basic Industries, (202) 377-0575.*

Additional References

Smelting and Refinery of Nonferrous Metals and Alloys, 1977 Census of Manufactures, Series MC 77-I-33C, July 1980, Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

Copper Industry Report, Mineral Industry Surveys, Bureau of Mines, U.S. Department of the Interior, Washington, DC 20241.

"The U.S. Copper Industry," *Mineral Issues*, October 1981, Bureau of Mines, U.S. Department of the Interior, Washington, DC 20241.

LEAD

Current Situation

The lead industry experienced little improvement during 1983, as lead consumption and prices remained extremely weak. A modest rise in lead demand during the second half of the year served to buoy lead consumption, but first-half consumption was down nearly 5 percent compared to the first 6 months of 1982. For the year, total lead consumption rose only 0.4 percent, to 1.19 million tons. High lead stocks and weak demand

Primary Copper (SIC 3331): Trends and Projections 1972-84

(in millions of dollars except as noted)

Item	1972	1977	1979	1981	1982[1]	1983[2]	Compound annual rate of growth 1972-83	1984	Percent change 1983-84
Industry data									
Value of shipments[4]	2,771.1	3,918.1	5,646.3	5,366.2	3,995.4	4,404.4	4.3	—	—
Value of shipments (1972 $)[4]	2,771.1	3,032.6	3,182.6	3,356.0	2,755.9	3,133.5	1.1	3,040.0	−3.0
Total employment	1.1	3,040.0	−3.0	—	—	—	—	—	—
Total employment (000)	17.2	13.1	11.9	10.7	8.6	7.0	−7.8	6.0	14.3
Production workers (000)	14.4	10.6	9.8	8.5	6.6	5.2	−8.8	6.2	19.2
Average hourly earnings of production workers ($)	4.82	8.13	9.99	12.62	13.63	14.34	10.4	—	—
Capital expenditures	119.7	D	90.8	D	—	—	—	—	—
Product data									
Value of shipments[5]	2,898.7	3,923.8	4,432.8	5,470.8	2,668.5	3,384.5	1.4	—	—
Value of shipments (1972 $)[5]	2,898.7	3,086.7	2,488.9	3,317.6	1,900.0	2,225.0	−2.4	2,340.0	5.2
Product price index (1972 = 100)	100.0	130.2	177.6	164.2	142.2	156.6	4.2	—	—
Trade									
Value of exports	190.5	82.4	156.8	73.0	49.3	50.2	−11.4	54.0	7.6
Value of imports	246.8	502.8	436.6	647.6	394.7	860.4	12.0	636.7	−26.0
Export/shipments ratio	0.066	0.021	0.035	0.013	0.018	0.015	—	—	—
Import/new supply ratio[6]	0.078	0.114	0.090	0.106	0.129	0.203	—	—	—

[1] Estimated except for product price index, exports, and imports.

[2] Estimated.

[3] Forecast.

[4] Value of all products and services sold by industry SIC 3331.

[5] Value of shipments of primary copper products produced by all industries.

[6] New supply is the sum of product shipments plus imports.

Source: Bureau of the Census and Bureau of Industrial Economics. Estimates and forecasts by the Bureau of Industrial Economics.

1983 Profile

Primary Lead

SIC Code: 3332

Industry data	
Value of industry shipments (mil $)	687.4
Value added (mil $)	n.a.
Total employment (000)	2.0
Total number of establishments[1]	3
Number of establishments with less than 20 employees[1]	0
Percent of industry shipments accounte for by 4 largest companies[1]	100

Major producing states accounting for
largest percent of industry shipments
MO (75%), NB (25%)

Product data	
Value of product shipments (mil $)	1,004.6
Value of exports (mil $)	20.0
Value of imports (mil $)	60.2
Exports as a % of shipments	2.0
Imports as a % of new supply[2]	5.7
Imports as a % of apparent consumption[3]	5.8

[1] 1977 Census of Manufactures.

[2] New supply is the sum of product shipments plus imports.

[3] Apparent consumption is the sum of product shipments plus imports less exports.

Source: Bureau of the Census and Bureau of Industrial Economics. Estimates by Bureau of Industrial Economics.

kept prices depressed as the yearly average domestic producer price fell 18 percent, to 21.0 cents a pound, the lowest since 1975. Total refined lead production declined 5 percent, to 1.14 million tons, dramatizing the severely depressed market conditions of the secondary industry. Primary producers managed to increase their production about 3 percent, but only at the expense of secondary producers, whose production declined 11 percent.

The consumption of lead by the storage battery industry, the largest end-use sector, accounting for 65 percent of total consumption in 1982, rose a modest 3 percent, to 800,000 tons. Improved demand for replacement batteries because of the unusually hot summer and low battery inventories caused battery makers to step up production, which increased lead consumption during the second-half of 1983. In addition, lower interest rates sparked automobile production, which stimulated lead demand for original equipment batteries.

The second largest market for lead is tetraethyl lead (TEL), a gasoline antiknock additive. Lead consumption in TEL has been declining since 1975, when environmental regulations limiting the use of lead in gasoline were adopted. In 1983, the decline in lead use in TEL continued, as consumption fell 24 percent to 100,000 tons. This substantial decline can be attributed, in part, to a general decrease in gasoline consumption, as well as the continued erosion of leaded gasoline's market share. More importantly, stricter EPA regulations governing the amount of lead large refiners may add to a gallon of leaded gasoline became effective in November 1982. By July 1, 1983, the regulation limited the amount of lead in leaded gasoline to 1.1 grams per gallon for all refiners. The stricter regulation was in response to the changing product mix of domestic refiners. Prior to this, the EPA used a pooled standard, in which refiners were permitted to add 0.5 grams of lead per gallon of gasoline averaged over total gasoline production. As unleaded gasoline's market share increased, refiners added more lead to their leaded product while continuing to comply with total lead in gasoline standards. The new regulation, in conjunction with leaded gasoline's falling market share, undoubtedly will cause continued declines in the consumption of lead by refiners.

Lead use in pigments, the third largest demand sector, rose slightly to 70,000 tons. This reflects the weak improvement in the heavy and commercial construction sectors and in certain consumer product sectors such as glass and ceramics. The resurgence in residential construction did nothing to support lead pigment demand, because lead pigments are no longer used in house paints.

The demand for lead in other end-use sectors rose modestly to 215,000 tons. Market weaknesses that began in 1982 in the ammunition, type metal, solder, and other construction sectors persisted throughout 1983. This restrained increases in lead use for these categories.

Persistent poor demand and a worldwide glut of refined lead continued to suppress lead prices in 1983. The U.S. producer price fell to a 7-year low at midyear, when the monthly average price bottomed near 19 cents a pound. As a result, the domestic producer price in 1983 declined 18 percent to 21.0 cents a pound. In just 3 years, the domestic producer price fell more than 50 percent, from 42.5 cents in 1980 to 21.0 cents.

A resurgence in zinc prices during the year only compounded problems for the lead industry, because zinc is a by-product in the production of lead. Higher zinc prices not only spurred zinc production, it caused an increase in lead production without a commensurate improvement in demand.

For the first time in 10 years, primary production exceeded secondary production in 1983. Low refined metal prices forced primary producers to increase lead production to 80-90 percent of capacity in order to reduce unit costs and generate positive cash flows. On the other hand, historically low prices created a severe cost/price squeeze for secondary producers. Even though scrap lead prices decreased with the decline in primary refined prices, the scrap price fall was not proportional to the fall in primary prices. Scrap lead battery plates, at 4-5 cents a pound, were too expensive for secondary producers to reprocess at a profit. The high cost of scrap feed, relative to the price of primary metal, caused an erosion of profit margins for virtually every producer. Some secondaries were forced to shut down their smelters and buy primary refined lead for their fabricating operations. In addition, scrap dealers significantly reduced their collection and processing of lead scrap during the year, favoring higher priced scrap metals. This reduced scrap availability and caused the secondary industry's operating rate to fall to near 50 percent of rated capacity.

Outlook for 1984

A sustained increase in overall economic activity and improved demand from the automotive and replacement battery sectors should enable the lead industry to experience a moderate recovery in consumption in 1984.

Total lead demand should rise about 5 percent to 1.25 million tons. Increased demand for lead by battery makers should account for the bulk of this growth. Lead consumption in both the original equipment and replacment battery sectors should grow to 845,000 tons, which is near 1981 consumption levels. Replacement battery demand is very responsive to severe weather

Primary Lead (SIC 3332): Trends and Projections 1972–84

(in millions of dollars except as noted)

Item	1972	1977	1979	1981	1982[1]	1983[2]	Compound annual rate of growth 1972–83	1984[3]	Percent change 1983–84
Industry data									
Value of shipments[4]	460.9	699.6	1,333.1	948.8	702.3	667.4	3.7	—	—
Value of shipments (1972 $)[4]	460.9	341.1	377.0	379.2	340.3	335.5	−2.8	353.0	5.2
Total employment (000)	2.8	2.5	2.9	3.0	2.4	2.0	−3.0	2.2	10.0
Production workers (000)	2.3	2.0	2.3	2.3	1.8	1.4	−4.4	1.6	14.3
Average hourly earnings of production workers ($)	4.39	7.37	9.24	11.60	12.53	13.19	10.5	—	—
Capital −expenditures	5.7	D	23.6	29.7	—	—	—	—	—
Product data									
Value of shipments[5]	682.2	1,268.9	1,991.8	1,519.1	1,169.6	1,164.6	3.6	—	—
Value of shipments (1972 $)[5]	682.2	572.4	558.1	531.2	494.8	480.9	−3.1	510.0	6.1
Product price index (1972 = 100)	100.0	225.8	360.4	268.0	236.4	208.9	6.9	—	—
Trade									
Value of exports	2.5	3.2	16.7	21.6	45.4	20.0	20.8	22.0	10.0
Value of imports	66.0	160.4	218.7	94.4	61.1	60.2	−0.8	65.0	8.0
Export/shipments ratio	0.004	0.003	0.008	0.014	0.038	0.020	—	—	—
Import/new supply ratio[6]	0.088	0.112	0.099	0.059	0.050	0.057	—	—	—

[1] Estimated except for product price index, exports, and imports
[2] Estimated
[3] Forecast
[4] Value of all products and services sold by industry SIC 3332
[5] Value of shipments of primary lead products produced by all industries.
[6] New supply is the sum of product shipments plus imports.
Source: Bureau of the Census and Bureau of Industrial Economics. Estimates and forecasts by the Bureau of Industrial Economics.

A cold winter is likely to increase replacement battery demand, but a mild winter, like the one experienced in 1982-83, could serve to weaken it.

TEL demand should continue to decline as leaded gasoline loses market share with each new automotive model year. Lead consumption in TEL should decline about 10 percent, to 90,000 tons. Increased activity in the construction, glass, and ceramics sectors should bring about a rise in lead pigment consumption of about 10 percent, to 78,000 tons.

In 1984, total domestic production of lead should rise about 4 percent, to 1.19 million tons. The problems experienced by the secondary industry should continue through the first half of the year or until the high level of lead stocks overhanging the market are reduced. Gradual increases in industrial activity and modestly higher refined lead prices should generate a slight improvement in scrap supply and provide a modest widening of producer margins. Secondary production is expected to increase 7 percent, to 600,000 tons, still well below secondary capacity of 1 million tons. Primary production should increase about 2 percent, to 590,000 tons.

Long-Term Prospects

Between now and 1988, the domestic lead industry is not expected to experience dynamic growth. The industry's long-term prospects depend largely on the stringency of environmental regulations and the development of new markets.

Environmental regulations continue to threaten the domestic lead industry. Pollution control costs currently account for roughly 30 percent of the industry's total capital expenditures, and the industry regards the current ambient air lead standard of 1.5 micrograms per cubic meter of air as unattainable given today's technology. EPA's development of a new Air Quality Criteria Document in late 1983 could be used to create a new lead standard, but it is unlikely the ambient air standard will be revised. Compliance problems will most likely be handled by negotiated settlements, extensions, and waivers. For example, OSHA, which promulgates workplace standards, proposed just such an approach in 1983. Realizing the 1978 workplace standard was too stringent and costly, OSHA proposed tailoring compliance plans to individual primary plants and developing various engineering controls to be used as a basic guide for

Lead in the United States

(thousands of short tons except as noted)

Item	1978	1979	1980	1981	1982	1983[1]	1984[1]	1988[1]
Consumption[2]	1,579	1,497	1,180	1,287	1,185	1,190	1,250	1,380
Total Production[2]	1,474	1,520	1,349	1,256	1,194	1,120	1,190	1,310
Primary	629	640	607	551	565	580	590	600
Secondary	845	880	742	705	629	560	600	710
Producer Inventories (eop)	19	51	61	88	51	95	90	—
Imports[3]								
Refined lead	249	201	90	113	101	125	110	110
Percent of Consumption	15.8	13.4	7.6	8.8	8.5	10.5	8.8	8.0
Ores and concentrates	58	44	49	65	39	40	40	45
Total imports (lead content)	307	245	139	178	140	165	150	155
Percent of consumption	19.4	16.4	11.8	13.8	11.8	13.8	12.0	11.2
Exports (refined lead)	8	12	181	26	61	25	14	40
U.S. Producer Price[4] (cents per pound)	33.7	52.6	42.5	36.5	25.5	21.7	—	—

[1] Estimates by Bureau of Industrial Economics
[2] U.S. Bureau of Mines
[3] Lead materials except scrap
[4] Metals Week average

secondary lead and battery industry compliance. Any inflexibility on the part of regulatory agencies, however, could result in a permanent loss of domestic capacity by 1988.

Lead consumption is expected to increase 3 percent a year, reaching 1.38 million tons in 1988. Lead use in batteries will continue to be the largest demand sector, growing 3-4 percent a year. The outlook for battery demand, however, has dimmed recently as the optimism once attached to load-leveling and electric vehicles has faded. Plentiful oil supplies and stable prices, and declining Government and private sector concern, have significantly reduced the market potential of new battery applications. In addition, the trend toward using less lead per battery is expected to continue, as companies vie to increase performance per pound of battery. New technologies, such as continuous grid casting, will result in significantly less lead being used per battery in the long term. In turn, this may impact the secondary industry, for as the lead content of batteries declines, recycling them becomes more expensive.

TEL demand should continue its downward trend, falling 8-10 percent annually. The demand for leaded gasoline will continue to decline, as the on-the-road population of automobiles that require unleaded fuel increases with each new model year. In the long term, a complete ban of leaded gasoline is not unlikely. Recent EPA studies show 17 percent of all vehicles requiring unleaded fuel are illegally using leaded gasoline. In addition, several EEC member countries are mounting a campaign to outlaw leaded gasoline in Europe. The United Kingdom, the Federal Republic of Germany, Denmark, and the Netherlands are stressing their commitment to lead-free fuel in the late 1980's. Similar proposals have been made by Canada. Although declining TEL consumption poses no threat to TEL producers, because TEL is a small portion of their business, it does mean significant losses for lead.

Clearly, substantial growth in lead consumption depends upon the development of new markets. Several new uses for lead show potential in the long term, but first the lead industry must overcome the general public's concern about the toxic effects of lead.

Significant market potential exists in such new applications as asphalt in road surfaces and roofing shingles, and as a stabilizing agent in plastics. In asphalt, lead diamyldithiocarbamate (LDAC) acts as an oxidation inhibitor and helps preserve asphalt road surfaces and roofing shingles. Initial market potential is projected to be 70,000 tons of lead a year, but with annual consumption of 30 million tons of asphalt, LDAC could provide significant growth potential. In plastics, lead can be used as a stabilizer in plastic pipes and other shapes. Initial market potential for this use is estimated to be 30,000 tons of lead a year.

The use of lead in auto body solder has been declining steadily because of OSHA workplace standards concerning worker exposure to airborne lead during the grinding process. Lead use in auto body solder will be banned entirely by 1986, but robotics could allow continued use of lead solder in auto bodies. The development of robotic grinding, however, is still several years away. Eventually, this use of lead could increase consumption by 80,000-100,000 tons a year.—*David Stonfer, Office of Basic Industries, (202) 377-0575.*

Additional References

American Metal Market, Fairchild Publications, 7 East 12th Street, New York, NY 10003.

Metals Week, McGraw-Hill Inc., 1221 Avenue of the Americas, New York, NY 10020.

"Lead," *Mineral Commodity Profiles*, 1983 Edition, Bureau of Mines, U.S. Department of Interior, Washington, DC 20241.

Lead Industry Monthly, Mineral Commodity Surveys, Bureau of Mines, U.S. Department of Interior, Washington, DC 20241.

Metals Report, National Association of Recycling Industries, Inc., 330 Madison Avenue, New York, NY 10017.

ZINC

Current Situation

The U.S. economic recession ended in late 1982, and zinc (along with aluminum) led the recovery in the nonferrous metals sector during 1983. Zinc consumption increased 12 percent from its depressed 1982 level primarily because of increased demand from the automotive and steel sectors. The increase in demand, merchant shortages, and relatively low producer stock levels caused by inventory liquidation during 1982, caused prices to firm and then increase; by the end of August the price for benchmark High Grade was 46 cents a pound compared to 38 cents a pound at the beginning of 1983, a 21-percent increase. On the negative side, domestic production continued to decline.

The 1983 production decline was caused, in part, by the indefinite closure of ASARCO, Inc.'s Corpus Christi, Texas refinery. The closure was reportedly the result of the lack of sufficient feed material caused, in turn, by the closure of the East Helena, Montana zinc fuming plant and reduced availability of concentrates from Mexico. The Corpus Christi facility, with an annual capacity of about 114,000 tons, is the largest domestic zinc refinery. The closing left only four producers operating, with annual capacity of about 320,000 tons. This

1983 Profile

Primary Zinc

SIC Code: 3333

Industry data	
Value of industry shipments (mil $)	246.0
Value added (mil $)	64.9
Total employment (000)	2.0
Total number of establishments	5
Number of establishments with less than 20 employees	0
Percent of industry shipments accounted for by 4 largest companies	85

Major producing states accounting for largest percent of industry shipments:
PA (29%), IL (24%), TN (20%),
OK (17%), TX (7%)

Product data	
Value of product shipments (mil $)	347.8
Value of exports (mil $)	1.0
Value of imports (mil $)	419.0
Exports as a % of shipments	0.3
Imports as a % of new supply[1]	54.6
Imports as a % of apparent consumption[2]	54.7

---

[1] New supply is the sum of product shipments plus imports.

[2] Apparent consumption is the sum of product shipments plus imports less exports.

Source: Bureau of the Census and Bureau of Industrial Economics. Estimates by Bureau of Industrial Economics.

compares to capacity of more than 1 million tons in the early 1970's.

In other developments involving the producers, the Bunker Hill lead-zinc-silver refinery was sold, after several unsuccessful attempts, to a limited partnership, and Gulf and Western Industries, Inc., announced plans to divest itself of the Natural Resources Group. This Group includes Jersey Minere Zinc Company, Clarksville, Tennessee, 40 percent of which is owned by Union Minere, a Belgium-based firm.

Steel galvanizing continued to be the largest use of zinc, accounting for slightly less than 50 percent of total consumption. The principal use for galvanized steel is in the automotive industry. The outlook for zinc use in galvanizing is bright because of the need to provide better rust protection for automobiles. Chrysler Corporation has announced its intention to increase the use of "one-and-a-half-side" coated steel for outer body parts, "one-side" in outer hoods and decks, and "two-side" for previously uncoated inner body panels. Ford Motor Company has also announced increased use of galvanized steel in certain models. Parts to be galvanized include the inner and outer hood panels, quarter panels, dash panels, and most of the door panels. The other automakers are taking similar actions. Primarily as a result of increased automobile output, increased quantities of galvanized steel in each automobile, and the increase in construction activity, zinc consumption in galvanizing amounted to 415,000 tons, 10 percent above the 1982 level.

Zinc use in diecastings is the second largest consuming market, accounting for 26 percent of total consumption. Since most diecastings are used in automotive applications, the resurgence of automotive output had a positive impact on diecasting consumption. In 1983, zinc consumption in diecasting totaled 224,000 tons, 6 percent more than in 1982.

Production of brass, an alloy of copper and zinc, is the other major demand sector for zinc, and brass use is dispersed among many economic sectors. With the economic recovery, consumption of zinc for the production of brass increased to 108,000 tons in 1983, 22 percent greater than the prior year level.

The amount of zinc used in other products increased 22 percent in 1983, to 127,000 tons, primarily because of increased zinc consumption in coinage. The substitution of zinc for copper in the penny has established a significant new market for zinc. The new penny contains 98 percent zinc with a 2 percent copper coating, compared to 95 percent copper and 5 percent zinc in the former penny. The decision to substitute zinc for copper was made because the price of zinc is below that of copper.

U.S. zinc production capacity declined substantially during the 1970's and early 1980's, leaving increased imports to fulfill domestic consumption requirements. In 1983, imports of slab zinc rose to 568,000 tons, 13 percent more than in 1982. Import penetration is expected to continue to increase as other countries expand capacity. Mexico, for example, in October 1982 brought on stream a new zinc refinery with an annual capacity of about 126,000 tons. A large part of this output is destined for the U.S. market.

Zinc prices began 1983 at 38 cents a pound and remained at that level until the end of April, when the price was increased to 40 cents a pound. The anticipation of a strong second half, reduced inventories, and reported shortages of merchant material caused the price to reach 46 cents by the end of August, 21 percent higher than at the start of the year.

Outlook for 1984

The revival of economic activity in 1983 is expected to continue in 1984. Increased output in the automobile industry, one of the two major zinc end-use industries, should provide the primary impetus for increased zinc consumption. Increased consumption is also anticipated in construction, the other major zinc end-use market; however, the level of interest rates could limit the extent of the increase in this sector. Relatively low zinc inventories and reduced domestic production capacity indicate that shortages of the metal could develop, making further price increases possible, although at a more moderate rate than in 1983.

Continuation of the upward trend in the economy in 1984 should cause zinc demand to increase to 924,000 tons, 6 percent more than in 1983. An estimated 11-percent rise in automobile output will lead the increase in demand for zinc. Construction, advancing at a relatively modest 4 percent, will also make a contribution.

Primarily because of increased automotive output, the amounts of zinc used in galvanized steel products and for diecastings are expected to increase 5 percent and 7 percent, respectively. Such increases will result in zinc consumption of 434,000 tons for galvanizing and 240,000 tons for diecastings. The consumption of zinc for the penny, estimated at 50,000 tons, will continue to provide a substantial market.

U.S. production of zinc is projected to increase 17 percent in 1984. Actual U.S. production levels could be significantly different than that projected, however, because of the uncertainty surrounding ASARCO's plans for its Corpus Christi,

Slab Zinc in the United States

(thousands of short tons)

Item	1978	1979	1980	1981	1982	1983[1]	1984[1]	1988[1]
Consumption[2]	1,158	1,103	894	920	782	874	924	1,151
Production	487	583	408	436	33	295	345	375
Producer inventories (end of period)	62	79	25	49	31	20	25	25
Imports[3]								
Slab zinc	686	581	453	675	503	568	584	776
Percent of consumption	59.2	52.6	50.7	73.4	64.3	65.0	63.2	—
Ores and concentrates	130	248	143	130	74	50	75	100
Total imports (zinc content)	816	829	596	805	577	618	659	876
Percent of consumption	70.4	75.2	66.7	87.5	73.8	70.7	71.3	76.1
Exports (slab zinc)	1	—	—	—	—	—	—	—
U.S. producer price[4] (cents per pound)	31.0	37.3	37.4	44.6	38.5	42.0	—	—

[1] Estimates by Bureau of Industrial Economics.

[2] U.S. Bureau of Mines.

[3] Bureau of the Census, Imports for Consumption.

[4] Metals Week average.

Primary Zinc (SIC 3333): Trends and Projections 1972-84

(in millions of dollars except as noted)

Item	1972	1977	1979	1981	1982[1]	1983[2]	Compound annual rate of growth 1972-83	1984[3]	Percent change 1983-84
Industry data									
Value of shipments[4]	376.4	430.7	574.0	468.1	270.1	246.0	3.8	—	—
Value of shipments (1972 $)[1]	376.4	228.1	276.5	187.0	124.5	101.5	−11.2	140.2	38.1
Total employment (000)	6.3	4.6	5.1	3.1	2.5	2.0	−9.9	2.3	15.0
Production workers (000)	5.2	3.5	4.0	2.3	1.8	1.4	−11.2	1.6	14.3
Average hourly earnings of production workers ($)	4.30	7.14	9.09	11.09	11.98	12.61	10.3	—	—
Capital expenditures	9.8	39.8	15.5	D	—	—	—	—	—
Product data									
Value of shipments[5]	457.9	523.3	659.3	669.3	310.2	347.8	− 2.5	—	—
Value of shipments (1972 $)[1]	457.9	280.7	319.6	266.5	143.0	137.2	−10.4	—	—
Product price index (1972 = 100)	100.0	186.9	205.8	250.4	222.3	253.5	8.8	—	—
Trade									
Value of exports	2.1	2.0	1.0	0.8	1.7	1.0	−6.5	1.0	0.0
Value of imports	181.4	374.9	396.9	549.3	192.2	419.0	7.9	550.0	31.3
Export shipments ratio	0.005	0.004	0.002	0.002	0.005	0.003	—	—	—
Import new supply ratio[6]	0.284	0.417	0.376	0.505	0.383	0.546	—	—	—

[1] Estimated except for product price index, exports, and imports.

[2] Estimated.

[3] Forecast.

[4] Value of all products and services sold by industry SIC 3333.

[5] Value of shipments of primary zinc products produced by all industries.

[6] New supply is the sum of product shipments plus imports.

Source: Bureau of the Census and Bureau of Industrial Economics. Estimates and forecasts by the Bureau of Industrial Economics.

Texas, plant and the divestiture of Jersey Minere by Gulf and Western.

Zinc imports are expected to increase about 3 percent, to 584,000 tons. Imports may increase more than that, however, as new foreign producers, such as Mexico, attempt to expand their penetration of the U.S. market.

Long-Term Prospects

Zinc consumption in 1988 is expected to total slightly less than 1.2 million tons, an amount equal to its 1978 level. Galvanizing will continue to be the largest application for zinc, although competition for the protective coatings market is expected to intensify. Products using less zinc per unit than galvanized steel, such as galvalume (55 percent aluminum, 43.4 percent zinc, 1.6 percent silicon), should expand their share of the coatings market. The reduction in per-unit zinc consumption will, however, be partially offset by an expanding use of coatings, primarily through efforts by the automobile industry to increase the rust protection of their products. In addition, galvan, a coating of 95 percent zinc, 5 percent aluminum, and a small quantity of misch metal, has been developed by the International Lead Zinc Research Organization and is reported to have the potential to compete with galvalume.

The use of galvanized steel in residential construction has the potential for expansion. In some cases, galvanized steel studding, joists, etc. are reported to be more advantageous than wood. The extent of the increase in this market will depend upon builders acceptance of using steel instead of wood and the relative prices of the two competing materials.

The per-unit use of zinc in automobiles has substantially declined because of substitution by plastics and downsizing. The substitution of plastics for zinc is believed to have peaked, however, and although downsizing is expected to continue, the prospects for increased zinc consumption in automobiles is promising because of the concern for corrosion resistance. Therefore, the anticipated growth in automobile production should increase zinc consumption. Consumption of zinc for the penny will continue to provide a signficant stable market, and zinc-aluminum alloys should be a growth area for consumption.

Domestic zinc production capacity is not expected to expand between now and 1988, and indications are that further reductions in capacity are possible. The upward trend in imports should continue, which will increase competitive pressures on the domestic industry.—*James S. Kenneay, Office of Basic Industries, (202) 377-0575.*

Additional References

Zinc Industry Reports, Mineral Industry Surveys, Bureau of Mines, U.S. Department of the Interior, Washington, DC 20241.

Zinc, Mineral Commodity Profile, Bureau of Mines, U.S. Department of the Interior, Washington, D.C. 20241.

Nonferrous Metal Data, American Bureau of Metal Statistics, New York, NY.

ALUMINUM

The aluminum industry includes all of several SIC codes and parts of others. Industry and employment data are for primary production of aluminum (SIC 3334); aluminum sheet, plate, and foil (SIC 3353); aluminum extruded products (SIC 3354); aluminum rolling and drawing NEC (SIC 3355); and aluminum foundries (castings) (SIC 3361).

Aluminum product data also include secondary aluminum (part of SIC 3341), insulated or covered aluminum wire and cable (part of SIC 3357), aluminum powder and paste (part of SIC 3399), and aluminum forgings (part of SIC 3463).

Current Situation

The aluminum industry rebounded strongly from its depressed 1982 levels and, along with zinc, led the nonferrous metals industry in the recovery of 1983. The economic recovery caused aluminum product shipments to increase 12 percent, to

CRITIQUE OF "RATIONALE FOR TAXING ZINC" (ICF, Inc.)

The rationale paper contains several broad, as well as inaccurate, statements concerning zinc and arranges them in such a manner as to create the inference that zinc in most forms is hazardous to human health and the environment. The converse is, however, more accurate -- that is, zinc, except where combined with other chemicals that are generally toxic in and of themselves, does not present a danger to human health. Moreover, only an extremely small percentage -- 0.8 percent -- of zinc consumption or use in the United States is used in the manufacture of zinc bearing chemicals that are regulated as "hazardous substances."

Hazards

Statement #1: "Zinc and numerous zinc compounds (e.g., zinc cyanide, zinc phosphide) are designated hazardous substances under the CWA, CERCLA and RCRA, and are hazardous materials under DOT's Hazardous Materials Regulations (HMR)."

FACTS:

A. This statement is false regarding the designation of zinc as a hazardous substance and misleading in suggesting that the presence of zinc in compounds is the basis for such designation. Neither zinc metal nor zinc oxide, which together constitute 98% of total U.S. consumption of zinc, are designated as "hazardous substances" under:

- 311(b) of the Clean Water Act (CWA), which provides protection against "spills" of hazardous substances and oil (40 CFR 116, 117);
- RCRA (40 CFR 261.31, 261.32, 261.33);
- CERCLA (incorporates other statutes by reference); and
- DOT's Hazardous Materials Regulations (HMR) (49 CFR 122.01).

Consequently, the zinc-bearing chemical compounds listed as hazardous under Section 311(b) of the CWA (15 compounds), DOT's HMR (24 compounds), RCRA (2 compounds), and CERCLA, which merely incorporates these listings by reference, account for only 0.8% of U.S. consumption of zinc metal products. Moreover, the zinc-bearing chemical compounds listed as hazardous under these statutes are not designated as hazardous because of the presence of zinc, but rather because of the presence of other chemicals that are toxic in and of themselves, e.g. arsenic, cyanide, ammonium chloride, etc. It is thoroughly misleading to attribute the toxic effect of certain zinc salts to the zinc portion of the compound and is analgous to saying that sodium cyanide is toxic because it contains sodium.

B. Zinc's classification as a "toxic pollutant" under Section 307(a) of the CWA is a misnomer. Congress used the term "toxic pollutant" before EPA had ever classified zinc as such.

Background: EPA has recently promulgated (March 8, 1984) final regulations under Section 307(a) of the CWA setting forth effluent limitations and pretreatment standards for waste water discharges from nonferrous metal production, including zinc. (Waste water discharge from the production of zinc is to be regulated in terms of pH (acidity) and the amount of suspended solids of metal in the water -- at 0.42 mg/l which is actually less than the secondary standard for zinc under the Safe Drinking Water Act.) These regulations were required to be issued under the 1977 amendments to the Clean Water Act (section 307(a)) and pursuant to a 1976 consent agreement resulting from litigation brought by the Natural Resources Defense Council against EPA (NRDC v. Train). That consent agreement contained a list of 65 substances, including "zinc and compounds," and termed them "priority pollutants" for which EPA was to promulgate effluent standards. The settlement agreement was developed and finalized in 1976 between EPA and NRDC without any consultation with the industries affected, including U.S. zinc producers and consumers. Subsequently, the conferees on the 1977 CWA amendments acted independently of the House and Senate-passed bills to add new language incorporating by reference the list of 65 "priority pollutants" for which effluent standards were to be promulgated, but calling them "toxic pollutants," the pollutant category of greatest concern.

C. EPA has recognized the mininal toxicity of zinc in drinking water, and it is regulated under the Safe Drinking Water Act's secondary standards -- "based upon taste considerations." EPA states in its October 5, 1983 Advance Notice of Proposed Rulemaking (ANPRM) announcing a possible revision of the primary drinking water standards (emphasis added):

> "...Zinc is relatively non-toxic and is an essential trace element. A wide margin of safety exists between normal intake from the diet and the amount likely to cause oral toxicity. At drinking water concentrations high enough to cause gastrointestinal disturbances, zinc would impart a strong astringent taste and milky appearance in water. Zinc interacts with other trace metals and has a protective action against toxicity of cadmium and lead... Treatment for zinc reduction is limited to processes which reduce the corrosivity of water... and the WHO (World Health Organization) recommends that zinc be kept below 5 ug/l for aesthetic reasons." (See *Federal Register*, Vol. 48, No. 194, p. 45517.)

* * * * * * * * * *

Statement #2: "Elemental zinc exhibits a low toxicity. Some zinc salts are known or suspected carcinogens. Zinc compounds such as zinc oxide can cause metal fume fever and chills when its fresh fumes are inhaled, and zinc chloride causes ulcerations of the skin and mucous membranes. Some zinc compounds are also toxic to freshwater animal and plant species."

FACTS: This statement contains both glaring inaccuracies and overly broad generalizations that are misleading. Each element of this statement is discussed below.

A. "Elemental zinc exhibits a low toxicity." EPA describes zinc in its October 5, 1983, ANPRM on possible revisions of the primary drinking water standards as "relatively non-toxic and is an essential trace element."

B. "Some zinc salts are known carcinogens." EPA and the Food and Drug Administration have both said that excessive consumption of zinc is not carcinogenic.

1. The Food and Drug Administration (FDA) proposes to "affirm that zinc oxide and zinc sulfate are generally recognized as safe (GRAS), with specific limitations, as direct human food ingredients and to affirm that zinc chloride is GRAS as an indirect food ingredient." (See Federal Register, Vol. 47, No. 207, October 26, 1982, page 47441 ff.) FDA notes that 1971 and 1977 National Academy of Science/National Research Council surveys indicate that zinc oxide is used in such foods as breakfast cereals, dairy products, and reconstituted vegetables. Zinc sulfate is used in such foods an non-alcoholic beverages, beverage bases, and infant formula (Ibid, p. 47442).

2. FDA reports that excessive consumption of major zinc salts can induce temporary anemia and that these salts are not carcinogenic. In this connection, FDA's Select Committee on GRAS reported (as quoted in the proposed rule):

> "In general the most important effect of feeding excess zinc appears to be a specific microcytic anemia, probably related to changes in iron and copper utilization... extensive studies indicate that feeding zinc oxide or zinc sulfate at levels in excess of 500 mg of the salt per kg has no consistently adverse effect. It would appear that the nature of the compound plays a significant role in the toxicology of zinc." (Ibid.)

3. The Select Committee also stated that there was no evidence of carcinogenicity in rat studies involving the feeding of excessive levels of the following zinc salts: (1) zinc oxide, (2) zinc acetate, (3) zinc carbonate, (4) zinc sulfate. (Ibid.)

4. EPA's 1980 Ambient Water Quality Criteria for Zinc notes that there was "no evidence that zinc given via the oral route or parenterally (intravenously) could cause tumors." (page C-42) It further states that:

> "The mutagenic effects of zinc have been discussed by the National Research Council which could not find literature that suggested zinc is mutagenic in animals and human beings nor have any new data appeared on this subject. The same conclusions can be made with regard to tetragenesis. The greatest risk is related to zinc deficiency." (page C-46)

C. "Zinc compounds, such as zinc oxide, can cause metal fume fever..." This no longer occurs under modern industrial practices. Metal fume fever was in the past fairly common in zinc production workers that were exposed to very high concentrations of zinc fume prior to the advent of modern ventilation controls in the workplace. Such maladies do not occur due to general environmental exposure to zinc and this non-debilitating disease does not occur in today's workplace. In this connection EPA's Ambient Water Quality Criteria for Zinc (October 1980) further rebuts the rationale paper's assertion:

> "Metal fume fever only appears after exposure to freshly produced metal fumes which can penetrate deep into the alveoli. Zinc oxide dust or other metal dusts are not capable of producing the disorder... There have never been any fatalities from metal fume fever, nor does it cause long-term sequeler." (page C-28)

In sum, the only threat ever posed by metal fume fever was solely at the production point for zinc oxide and was a result of the fumes. Consequently, it is impossible for it to occur at a Superfund site and was a concern involving occupational safety and health for a limited number of metal workers -- a concern which no longer exists in today's zinc plants. In view of this, the rationale paper's assertion is both a gross oversimplification and irrelevant to Superfund.

D. "Zinc chloride causes ulcerations of the skin and mucous membranes." Zinc chloride can cause such ulcerations because of the presence of chloride, as an anion, not because of the zinc itself. As a concentrated chloride solution, zinc chloride is very acid, but the acidity diminishes rapidly on dilution by most solvents. It is used in several types of industrial processes to dissolve other organic substances, for skin wounds and was formerly used as a caustic. When used in medicine its "burning properties" are limited to the area of application.

E. "Some zinc compounds are also toxic to fresh water animal and plant species."

Chemical compounds that contain zinc may pose potential problems for aquatic animal and plant life if present in abnormally large concentrations and amounts. EPA's Ambient Water Quality Criteria for Zinc (October, 1980) discusses the acute and chronic toxicity of zinc to freshwater animal and plant life and essentially concludes, however, that most fish and plant species are not significantly adversely affected by the presence of zinc in water. Moreover, the numerous studies noting fish kills in the report are based on exposure to zinc chloride, zinc sulfate, and zinc nitrate -- compounds of zinc with other chemicals. In this connection, the Criteria Document states:

> "Paramount to the question of zinc toxicity are the physical and chemical state of the zinc, the toxicity of each form of the zinc, and the interconversion to be expected among the various forms. All zinc forms are presumably nontoxic unless they can be sorbed or bound by biological materials. Conversely, all zinc forms are potentially toxic (to aquatic life) if they can be sorbed or bound by biological tissues... Thus, the toxicity of undissolved zinc to any organism depends on feeding habits with the result that plants and most fish would be relatively unaffected by suspended zinc, but many invertebrates could be adversely affected by ingestion of sufficient quantities of particulates containing zinc... (Thus, the) toxicity of zinc, as well as other metals, is reported to be influenced by a number of chemical factors including calcium, magnesium, hardness, pH, and ionic strength. These factors appear to offset the toxicity of zinc by influencing the proportion of available zinc or by inhibiting the sorption of available zinc by biological tissues." (Pages B-2,3)

Consequently, the statement that suggests the mere presence of zinc compounds will destroy aquatic animal or plant life is a gross oversimplification of what appears to be a very limited impact.

* * * * * * * * * *

Statements #3 and #4: "Cadmium and some cadmium compounds (e.g., cadmium acetate, cadmium bromide, cadmium chloride), antimony and numerous antimony compounds (e.g., antimony pentachloride, antimony trioxide, antimony trifluoride), and mercury and mercury compounds (e.g., mercuric cyanide, mercury fulminate, mercury sulfate) are designated hazardous under the CWA, CERCLA and RCRA and are hazardous materials under HMR."

"Cadmium has been shown to be a teratogen, a carcinogen, and a mutagen. Cadmium is toxic to numerous plants and animals; it is also flammable and upon ignition can explode. Many antimony and mercury compounds are highly toxic or lethal when ingested or inhaled and are also irritants to the skin and mucous membranes. Some antimony compounds are known to form explosive mixtures with other compounds."

FACTS: While these statements are ostensibly correct, their use as a basis to impose a tax on zinc production is disingenous and misleading because it seeks to link zinc to cadmium's and mercury's toxicity. Moreover, the relative toxicity of metals is a function of the particular chemical form in which it is manifested, which in turn determines whether or not it is absorbable by tissue, and whether it occurs in toxic concentrations and toxic amounts. Zinc, however, is considered generally to be non-toxic and only mildly toxic to humans at excessive concentrations. Finally, H.R. 5640 proposes to impose a similar tax on cadmium and mercury and, consequently the inclusion of these statements suggest an attempt to "pad" the rationale for imposing a tax on zinc.

* * * * * * * * *

Releases

Statement #5: Zinc, related metals, and their compounds have been found at the following number of the 881 Hazardous Ranking System scored sites:

Metal	Number of Sites
Zinc	106
Cadmium	122
Mercury	76
Antimony	5

FACT: The mere presence of zinc at the 106 sites in no way indicates whether zinc was even the problem to be resolved. The November 1983 report of ICF, Inc. to EPA, upon which this statement is based, notes that (emphasis added) "the data base also omits concentration data. The HRS data do, however, provide insights into the occurrence of exempt and associated substances relative to other substances used in scoring sites for hazardous content." ("Analysis of Substances Exempt from CERCLA Tax...," November 1983, ICF, Inc. at page 2-4.) Consequently, the only measure presented in the report was whether the metal was present in detectable amounts, not whether they presented any pollution problem. Metals, because of their persistency, are easily identified at very low concentration levels and, thus, can be expected to be found at most sites if an analysis for metals is conducted.

This same ICF study then "leaps" to the dubious conclusion that because substances are merely present at many sites, expenditures to clean them up will be "measurable." (page 2-15) In sum, the ICF study, by its own admission, lacks data on the concentrations and quantities of zinc at the NPL sites (p. 2-11), and assumes, in conjunction with the rationale paper, that the mere presence of a metal, such as zinc, is a basis upon which to launch a cleanup action.

Statement #6: "Typical examples of National Priority List (NPL) sites containing zinc, cadmium or mercury include:

- -- Iron Mountain Mines, Inc., Keswick, California: Contamination of soil, surface water, and groundwater by wastes deposited at tailing ponds and pits. Hazardous substances found include copper, cadmium, and zinc.
- -- California Gulch, Leadville, Colorado: A ravine cut by a stream is contaminated by mine drainage. Hazardous substances found include manganese, lead, zinc, copper, cadmium, iron and cobalt.
- -- Tar Creek, Ottawa County, Oklahoma. Water and air contamination from mine drainage. Hazardous substances found include cadmium, lead, zinc, and iron."

FACT:

A. Iron Mountains Mines. The site involved abandoned copper, not zinc, mines that operated from 1877-1962. The principle problem involved acidic mine drainage which has resulted in acidic water in those areas of the stream adjacent to the tailings piles, as well as the deposition of granular ore tailings in the streams. As a result, very sensitive trout and salmon species have been killed. It is noteworthy that substantially larger amounts of iron, as well as some aluminum, are also contained in these piles, and the acidic drainage would render all metallic minerals soluble in such circumstances. In any event, zinc is merely a mineral present in the waste rock along with several others at this abandoned copper mine site.

B. California Gulch. This is an abandoned lead-zinc mine and the principle problem is also acidic mine drainage. Moreover, the stream referred to is essentially an intermittent stream and is not inherently capable of sustaining aquatic populations, if any, of significant size. Finally, there are no known instances of toxic effects on livestock which drink water from the Arkansas river and fish continue to be caught at the confluence of the California Gulch and the Arkansas River.

C. Tar Creek, Oklahoma. This area is an abandoned lead and zinc mining district. The recent report by the Oklahoma State Health Department (released January 9, 1984), included:

- -- There are no adverse health effects, as long as mine water is not consumed;
- -- Properly treated water of the Neosho River, Spring River and Grand Lake is safe to drink;
- -- Fish from the Neosho River and Grand Lake are safe to eat;

-- Air in the mining region is safe to breathe;

-- Current water supplies provided by the Roubideaux ground water formation are safe to drink.

* * * * * * * * * *

Production

Statement #7: "Wastewater from pretreatment of zinc ore and ore processing is sent to a tailings pond at the mine site. These waste streams contain lead, zinc, copper, cadmium, antimony and mercury."

FACT: This statement is misleading in its characterization of the water used to transport the remaining ore from which the zinc has been extracted as "waste water" and in conveying an implicit presumption that these metals, if they occur, are in a toxic chemical form. First, tailings consist of the finely ground waste ore, from which the desired metallic mineral has been removed that must be hydrologically transported in a water slurry to a surface impoundment. Second, these metals, if they are present in the slurried waste rock tailings, still remain in their unprocessed natural mineral non-toxic form, although in granular waste rock.

* * * * * * * * * *

Statement #8: "Wastes from zinc production contain zinc and other metal oxides, cadmium, lead, cyanide, managanese, zinc, copper, and mercury."

FACT: This statement, which refers to waste streams from the zinc smelting and refining process, is so broad that it lacks any definition. It is misleading because it presumes the toxicity of all these metals, irrespective of the chemical form in which they occur and their relative concentrations. Moreover, in the U.S. there are now only 4 operating zinc smelters, and a fifth has recently announced its intention to reopen after being closed for over 16 months. These smelters' wastestreams are subject to EPA regulations under the Clean Air Act and Clean Water Act, and consequently their emissions and waste water treatment discharges are subject to EPA standards. Moreover, most waste streams which contain substantial quantities of metals are recirculated back to other recovery units in order to avoid loss of these metals' values. The remaining sludges or the larger volumes of "cinder-like" slag contain small amounts of unrecoverable metals and inorganic salts. The relatively low metal concentrations in the slag are not likely to contaminate ground water or the environment because of low solubility. Consequently, the threat to the environment is minimal and no hazard is posed to human health.

* * * * * * * * * *

Statement #9: "Wastewaters from scrubbing of gases high in sulfur dioxide contain relatively high concentrations of mercury."

FACT: This statement is both erroneous and also misleading in implicity suggesting that zinc smelter wastewater is discharged without treatment. In this connection, ICF's own report to EPA states:

> "Gases high in sulfur dioxide, from the roasting of zinc concentrates, are 'scrubbed' (sulfur dioxide is removed in a sulfuric acid plant). The scrubbing residue, or sludge, contains almost all the mercury from the zinc concentrate. This sludge may be recycled, but recycling is difficult if the mercury content is high. If it is not recycled, it remains as a byproduct and must be disposed of at a waste disposal site either on or off the mine site."

The mercury is therefore captured in the sulfuric acid (not the water), that is manufactured in the smelter's acid plant, is removed, and then contained for later disposal. Consequently, the containment and disposition of the mercury is a problem to be dealt with at operating smelters, not at abandoned mine sites. To have included this statement as a basis upon which to impose a tax on zinc producers is at best in error and in fact disingenuous.

Mr. GIBBONS. That is an excellent statement from all of you. I am sorry, I don't have any more questions. I just appreciate you coming and helping us and we will make sure that the word gets around.

Thank you.

Mr. CONABLE. Let me say one other thing. You shouldn't be discouraged by the fact that so few of the committee are here. You are talking for the record, and a complete record is kept.

The staff summarizes your testimony and it will be given equal treatment with that of the witnesses who appeared earlier, and who were subject to a great deal more cross-examination than yourself.

The process here is one which involves a good deal of staff compendium and analysis, and I hope you understand that your words are not being wasted on the desert air. They will go into the record, will be considered with equal weight with those presented earlier in the day, and indeed, I think some of the testimony we have had late this afternoon has been superior to any we have had all day.

I don't mean to characterize testimony, because of course, it is primarily reviewed for its factual analysis and not necessarily presentation, but obviously, we have got to be careful with this matter in that the gravamen of the witness that has been borne here is cumulative expression of concern that the committee will, I am sure, want to take up with the other committees responsible for this legislation, as well as discussing it among ourselves.

Thank you very much.

Mr. READ. Along those lines, Mr. Chairman, Representative Conable or Duncan earlier asked a couple of panelists if they had any comments with respect to Mr. Florio's testimony. I certainly do.

Whenever he talks about the profit margins and the fact that the tax is only 3 percent, when our profit margins are less than 3 percent and the tax, it has already been stated earlier, is even greater than 3 percent, I would recommend and suggest that they might want to look at some of us smaller companies in comparing these profit margins.

Mr. GIBBONS. Profit margins are——

Mr. CONABLE. And another thing that has been apparent from the discussions here, the nature of this business is that it is not easily passed on to consumers. Now, that may not be the case with respect to all of your particular metals, but clearly, where you have, for instance, feedstocks coming from abroad, and the probability that those feedstocks will be increasingly competitive for reasons that we all know on this committee, the opportunity to pass it on to consumers just isn't there.

Mr. READ. That is right. As Mr. Holmer said, there is no way you can go from ethylene and pass it to polyethylene and polypropane. You just can't do it.

Mr. GIBBONS. Thank you for your testimony.

Our last panel is composed of ASARCO, with the Louisiana Land & Exploration Co. and Oldover Corp.

Mr. CONABLE. I am astonished that all three of you are still here.

STATEMENT OF ROBERT J. MUTH, EXECUTIVE VICE PRESIDENT, ASARCO, INC.

Mr. MUTH. Mr. Chairman, I am Bob Muth, executive vice president with ASARCO, Inc. We are a major United States and foreign producer of metals and minerals, principally nonferous metals.

First of all, thank you very much for continuing this session so late in the evening today and hearing us out.

The hour being what it is, I would like to ask your indulgence and instead of presenting my formal statement, I would simply like to respond to certain questions that you, Mr. Chairman, and others have asked during this session.

Mr. GIBBONS. Certainly. If you have a statement we will put it in the record anyway.

Mr. MUTH. Thank you.

First of all, Mr. Chairman, you raised the question whether the committee ought not to be looking at some sort of sales tax on products further down the chain of production. I would like to respond to you, sir, by saying that I think you have grasped the essence of the problem here. These feedstock taxes that have been imposed under Superfund have been adopted with high ideals to achieve needed environmental goals, but they have been imposed with very little regard for the usual kinds of considerations that go into tax policy and particularly excise taxes. We are particularly concerned about the competitive effects that such feedstock taxes can have on domestic industry.

And I think what you heard today is the result of concern. We are all in danger as a result of these taxes. The present competitive threats to all of us, since they impose costs which cannot readily be passed along in the price of our products.

We are looking for ways to resolve those problems. I think that the bill that you have before you contains some provisions to assure equal taxation of imports. These measures are intended to help assure that the competitive position of domestic industry is not further undermined by these taxes.

Mr. GIBBONS. Those look pretty unenforceable to us though. I don't know how in the world we would ever collect that tax.

Mr. MUTH. Could I address that, sir, with respect to metals only? There are two separate and distinct provisions in the bill that you have that relate to taxation of imported products. One is a recommendation dealing with chemicals and the other with metals. Now, they are quite different. The provision for metals simply requires that the metal content of fabricated mill products, alloys and compounds be taxed when imported at the same rate as the basic metal is taxed. So that, for example, if lead is taxed at 15 cents a ton, then the lead content of batteries would be taxed at 15 cents a ton. It is not expected that this would present GATT problems, nor would it be administratively very difficult to enforce.

Mr. GIBBONS. The lead content of a car, though, how would you ever do that?

Mr. MUTH. The provision dealing with taxation of metal content stops short of that, sir. The tax would be limited only to those items the principal value of which is found in the metal.

In other words, the tax would be on the metal content of a mill product, sheet, strip, tube, rod, this sort of thing, where perhaps 85 to 90 percent of the value of the fabricated product is in the metal itself. But the tax would not apply to the metal content of automobiles, refrigerators, or other consumer products than lead batteries.

The nonferrous metals tax provision recommended in H.R. 5640 would not use the same approach as the chemical industry has proposed of levying a 5-percent tax on the landed value of an imported chemical and then investigating whether to see if that is an appropriate amount. The tax provision we favor would simply be on the metal content, and it would apply equally to the metal content of these fabricated products alloys, and compounds that were previously untaxed, regardless of whether or not they were imported. In this regard the Bureau of Mines and the U.S. Bureau of the Census maintains very good statistical data. If you look to see how much lead has been imported into the United States, you will see that the records are kept in terms of the lead content of sheet, strip, tube, lead content of lead oxide, and other compounds, alloys and fabricated products, the principal value of which is in the metal.

That data is already available and tabulated.

I am already out of time, I see.

Mr. GIBBONS. That doesn't mean you are out of time, go ahead.

Mr. MUTH. Congressman Moore, you raised the question, sir, about the waste-end tax and does it or does it not create a disadvantage for domestic industry? I would like to suggest to you, sir, that it most clearly does. If you take the case of metals, for example, lead sells today for about 30 cents a pound. That is, the world price for lead. Whether the lead is imported or produced domestically the price is 30 cents a pound. You can find it in the Wall Street Journal.

If a domestic producer must pay a tax on its wastes, that domestic producer can still charge only the price of 30 cents. The imported material which does not have to bear the costs of the waste-end tax still has a price of 30 cents. All you have done is to increase the cost of the domestic producer, without doing so for our international competitors.

So the firm that is selling the product, the production of which generates the waste—at that level—the U.S. producer is necessarily placed at a decided disadvantage by a waste-end tax. There is no way that I know of to offset that disadvantage through any sort of import tax. It would be hideously complex to try to do that.

Mr. Chairman, you have raised the question about why not tax slag?

This raises the whole question of the exemption for mine wastes which was recommended by the Energy and Commerce Committee. The reason for that, sir, is, as you have heard, there is a study going on by EPA as to whether or not mine wastes pose a serious health or environmental risk. But the problem is essentially an economic problem. Chemical wastes tend to involve wastes that may be highly toxic and are relatively small in volume in comparison to the product. With mining it is quite the other way. In Tennessee today we mine zinc ore that is 4-percent zinc, 96-percent waste. Now, if you do the arithmetic on it what you would find is that the zinc contained in that ton of ore as refined metal after it has been mined, smelted, and refined, is worth $40.

Well, a $30 a ton tax on the waste component would consume the value of the ore. Now, that is the order of magnitude of numbers we get into when we talk about taxing mineral wastes.

I think that that is the problem that is making it so much a different subject and why it has to be looked at so very carefully. In addition, it seems clear that with mining wastes only a very small part of the total wastes could even be considered potentially hazardous.

Mr. GIBBONS. I was thinking about lead. Lead is lead is lead, you know, and whether it is lead that is used—the previous witnesses who sat right where you were said that half the lead in the United States was produced from reprocessed lead.

Mr. MUTH. That is correct.

Mr. GIBBONS. He pointed out that in his process he would both use the blast furnace to reduce it, his slag is taxed but the slag of the virgin material is not taxed.

Mr. MUTH. Well, the difference is there is not much slag produced in production of secondary lead, it is just melted and cast. So, secondary producers would not have to pay much waste end tax, but primary producers cannot help but produce significant amounts of slag.

Mr. GIBBONS. What are we talking about then if there is not some slag out there?

Mr. MUTH. In the case of——

Mr. GIBBONS. If you didn't have anything left I don't think he would complain anyway.

Mr. MUTH. Sir, ASARCO is also involved in production of secondary metals. Last year our recycling business accounted for $100 million in sales. This is big business.

Mr. GIBBONS. Yes, sir.

Mr. MUTH. The processing of secondary metals produces relatively little waste. In the case of mined lead, however, we start out with lead ore which is approximately 10-percent lead. So, again 90 percent of the volume of the mined ore is waste material. In the case of used battery scrap we may be talking about 2-percent impurities or so-so the waste volumes are quite different.

There is another problem here that has not been alluded to in the taxing of the secondary metals and that has to do with the effectiveness of any tax which would cover imports.

It is true that some producers produce only primary metal and some produce only secondary, but many of us produce metal from furnaces, the feed to which is both primary and secondary material. When it comes out it is all lead. If you want to tax imports of lead as well as domestic production, but you want to exempt secondary lead, how in the world are you going to enforce that? Every pound of lead that comes into the country will be denominated by the importer as being of secondary origin. The only way you could distinguished lead from primary production and lead from secondary production in such a situation would be to use a statistical test.

If 30 percent of the feed into a given smelter is battery scrap, then presumably 30 percent of what comes out is of secondary origin. But for purposes of physical identification, it is all the same stuff. So, the recycling credit proposal which is under consideration would do great harm to any effort to tax imports equally with domestic production of nonferrous metals.

I think there has been too little attention paid to the question of the very difficult enforcement problems that will arise from drawing distinctions between primary and secondary metal. Now the situation may be quite different with other materials, but with metals we are talking about essentially fungible material, physically identical, very often produced out of the very same furnace, and, of course, fully competitive in the marketplace.

So, in addition to creating the problem of enforceability with respect to imports, exempting secondary materials from the tax would have the additional problem of creating a competitive disparity among producers who today compete in the same markets.

Mr. GIBBONS. I see.

Mr. MUTH. Finally, I would just like to make one very brief comment. You have heard today from an organization called the Washington Council for Zinc. That group contains some very fine people, including Mr. Bauer, who is a fine and valued customer of ours, but there should be no mistake that that group does not speak for the domestic producers of zinc either primary or secondary.

The Washington Council for Zinc is a group of domestic zinc alloyers plus essentially Canadian zinc producers who are seeking entry into the U.S. market for Canadian zinc at obviously the best terms available.

If there are any other questions I would be happy to speak to them, otherwise I think I am done.

[The prepared statement follows:]

STATEMENT OF ROBERT J. MUTH, EXECUTIVE VICE PRESIDENT, ASARCO, INC.

Our concern remains that this goal be accomplished with the least possible economic dislocation or burden on any sector of the economy.

INTERNATIONAL COMPETITION AND ENVIRONMENTAL PROTECTION

One reason why ASARCO could support enactment of CERCLA in 1980 is that the so-called "front-end" tax applied to importers as well as domestic producers of listed taxable chemicals. Thus, CERCLA's funding mechanism seemed to recognize and respond to several major realities of modern industrial life that other environmental laws have ignored. These realities, which are of particular concern to the nonferrous metals industry, include the following:

We operate in a world market, with strong international competition, and prices are determined not by us, but by trading on the London Metals Exchange and other commodity exchanges throughout the world;

Because we have no substantial control over the prices of our products, we cannot pass through to our customers additional costs that are imposed on us but not upon our foreign competitors. We are in this respect very much like the wheat farmer, and very unlike a regulated utility;

If additional costs are imposed on the domestic producers of metals, but not on our foreign competitors, we face two unenviable prospects: either we "absorb" these added costs ourselves or we avoid the costs by reducing or terminating production and withdraw from contested markets;

Our industry is highly cyclical. Even now, after two years of "recovery," the metals industry remains severely depressed. We are in no position today to absorb increased costs. But even if these were good times, we would know that less good times, and possibly very poor times, lie ahead. And it is during the poor times that the high cost producer falls by the wayside.

Inevitably, increased costs falling only on the domestic producer mean increasing foreign penetration of domestic markets, loss of domestic production and of export business, loss of U.S. jobs, and more and more U.S. mineral reserves becoming uneconomic to mine.

The conclusions we would have you draw from this are these: we must find ways to assure that the costs of environmental protection do not cripple the ability of U.S. firms to produce competitively. If these costs can be structured in ways which will not undermine the international competitive position of domestic producers, then domestic industry will be more likely to support needed environmental clean-up legislation. If not, you present domestic industry with no choice but to opt for survival. It is in this general context that we would like to discuss proposals to revise and extend Superfund.

THE WASTE END TAX: GOING IN THE WRONG DIRECTION

One of the major issues to be considered in this legislative deliberation is whether to impose a so-called "waste-end" tax. H.R. 5640, as reported by the House Energy and Commerce Committee, includes provisions for a waste-end tax in section 503 of the bill. For reasons explained in the Committee Report, the committee bill would exempt from this tax wastes associated with the mining, milling, smelting, and refining of non-ferrous metals. While we support this exemption, we believe, for reasons which follow, that no waste-end tax should be adopted at this time. We favor instead a congressionally mandated study of the economic and other consequences of taxing waste.

Originally put forward as a way to raise additional revenue, the waste-end tax proposal is now advocated by some as a way to create "economic incentives" for the reduction and/or treatment of hazardous wastes. Theoretically, the idea has some attraction. However, again the realities of industrial competition intrude, and we believe these realities suggest quite strongly that a "waste-end" tax is the wrong way to go.

First, and foremost, a waste-end tax necessarily undercuts the competitive position of domestic industry. Since it would apply only to waste generated and disposed of in the U.S., only domestic producers would be subject to the tax. Foreign competitors would not have to pay. The result can only be to impair the ability of domestic industry to compete in the world market.

If a waste-end tax were absolutely essential in order to raise the necessary funds for superfund clean-ups or to control future hazardous waste generation, one could understand why the U.S. Congress would consider disadvantaging the Nation's own industrial base. But such a tax is not at all necessary. Needed funds for Superfund purposes can be generated in any number of ways, and there are regulatory options for dealing with waste generation and disposal.

As a recent GAO report demonstrates, State experience with waste-end taxes has not been encouraging.

"GAO found that the three states [studied] (1) have not collected the revenues they anticipated, (2) have not determined if the tax achieved its objective of encouraging more desirable waste management practices, and were concerned that a similar federal tax may reduce state tax revenues or increase the incentive to illegally dispose of hazardous waste."[1]

Moreover, from a practical standpoint, there appear to be very serious questions about the collectibility and administrative feasibility of implementing a waste-end tax. The bureaucratic costs, complexity, inefficiency, administrative and enforcement problems entailed in implementing a waste-end tax could be quite great by comparison to the front-end tax approach. As the GAO report notes, "Neither EPA nor IRS has estimated the cost to implement [and enforce] a waste-end tax. The IRS senior program analyst for CERCLA activities could not attach a dollar figure to the potential costs of implementation . . ." *Id* at p. 34. The number of waste generators and/or disposal sites at which the tax would be imposed would have to be far greater than the relatively small number of major producers of taxable chemicals who now serve as tax collectors for the Fund. For example, the 1980 Senate Committee report on CERCLA noted that the front-end tax would be easier to administer than a waste-end tax because it would be levied on fewer than 1000 companies, instead of the 260,000 waste generators who might be covered under a waste-end tax. The number of taxable substances would also increase markedly. The GAO report estimates that some 696 so-called "hazardous substances" could be subject to the waste-end tax by comparison the the less than 50 sustances which are presently taxed under the present front-end tax system. *Id.* at p. 1. Finally, as the GAO report pointed out, current data systems are not adequate to carry out a waste-end tax system. Thus, significant new reporting and recordkeeping costs and burdens would be entailed both for the government and private industry.

There are other serious difficulties with implementing a waste-end tax scheme which are set forth in detail in Appendix A to this testimony.

Finally, it is worth noting that the current tax system under CERCLA has by and large been a reasonable reliable, efficient, and generally equitable system for raising the necessary revenues. Proponents of the waste-tax have yet to demonstrate persuasively that the current tax system poorly serves the purposes of the Act; nor in our judgment have they responded effectively to the many real world concerns about the workability and the negative economic effects of the waste-end tax.

THE IRS PROPOSAL: TAXING THE PROCESS, NOT THE PRODUCT

Another tax measure of concern to the nonferrous metals industry has been the IRS' proposal under CERCLA to tax transitory compounds of copper, lead, and zinc when they appear in the process of extracting and refining these metals from ores and concentrates. Clearly, we do not believe Congress intended in 1980 to tax these compounds in the metals extraction process. To tax the process, rather than the product inevitably awards a competitive advantage to our foreign competitors.

We are pleased to note the recent action of the Congress in the Federal Deficit Reduction legislation to amend CERCLA to clarify that no such tax on the process was intended in 1980. We are also pleased to note the recommendation of the House Energy and Commerce Committee that the front-end tax not apply to in-process compounds in the non-ferrous metals industry. We urge this Committee, in considering its 1984 CERCLA amendments, to adopt similar language to make clear to the IRS that no authority is being conferred to tax in-process compounds in the metals extraction and refining process.

TAXATION OF IMPORTS AND RECYCLING CREDIT

Our concern about CERCLA tax policy and international competition necessitates turning some more detailed discussion of taxation of imports. We support the provisions of the current law and of H.R. 5640 under which imported refined metals are taxed the same as domestically produced metals.

However, taxation of the refined metal alone is insufficient to assure that domestic producers are treated evenhandly under CERCLA tax policy. We support the Energy and Commerce Committee's recommendation to assure that exporters to the United States do not evade the tax on non-ferrous metals by selling downstream mill products, alloys, and compounds of taxed metals. The Energy and Commerce

---

[1] GAO, "State Experiences With Taxes on Generators or Disposers of Hazardous Waste," Report to the Chairman, Subcommittee on Commerce, Transportation, and Tourism, Committee on Energy and Commerce, House of Representatives, May 4, 1984, pp. ii.

Committee has recommended taxing the non-ferrous metal content of these products, alloys, and compounds, and we support adoption of their recommended language. In addition to preventing foreign competitors from gaining an unintended advantage, this recommended measure would also help raise additional revenues for Superfund.

We note with alarm, however, the proposal to give a credit against the tax for recycled metals. This provision, if adopted, would create a certain loophole for our foreign competitors. Metals refined from primary and secondary (scrap) material are usually indistinguishable, and are in fact commingled in the refining process. There often is no way to physically distinguish primary from secondary production. It is thus difficult to believe that a credit for materials derived from secondary sources would not be subject to serious abuse as applied to imports. In addition, a recycling credit would create new competitive disparities among domestic primary and secondary metal production. Tax policy should be most wary about favoring one segment of an established industry over another. We do not ask for any advantage over our foreign competitors or domestic secondary competitors, but we do ask that we all be treated equally in the task of raising necessary Superfund revenues.

FRONT-END TAX RATES

The current Superfund tax system has worked reasonably well to raise needed revenues. A large number of commodities have been taxed at relatively reasonable tax rates. In this way, the economic dislocation for any one sector or commodity has been minimized, if not eliminated.

The mining industry has contributed about 4 percent of the tax revenues and mining industry sites represent about 4 percent of the sites on the priority list. Nor is there any indication to date that the cost of dealing with mine sites will be disproportionately large. If anything, it would appear to be the other way around.

H.R. 5640 would raise additional revenues not only by taxing wastes, but also by significantly increasing tax rates of the taxable commodities under CERCLA. We would favor an approach which would broaden the list of taxable commodities while keeping the tax rates substantially lower than those suggested in H.R. 5640. We are particularly concerned about across-the-board increases of over 300 percent on metals at a time when metal producers are almost uniformly incurring losses, or at best operating on extremely low profit margins. We are also concerned that H.R. 5640 would impose the same dollar tax per ton on materials of vastly differing value. We would be pleased to work with the Committee to suggest specific means to broaden the list of taxable substances, while keeping tax rates low. No matter how carefully a tax structure is crafted, itis virtually certain to have some negative economic impact on producers and consumers of the taxed materials. A modest tax rate, therefore, is needed insurance against unintended adverse effects, and need not impair the effectiveness of the program.

We know that there are no easy answers for many of the difficult questions which confront Congress and American industry in the CERCLA reauthorization debate. But we believe that with a constructive attitude, a willingness to build policy which incorporates and balances a range of values, and a certain amount of creativity much can be accomplished. In this spirit, we offer our assistance and pledge to work with the Committee. Our hope is that ASARCO can again be an active supporter of legislation to re-authorize and extend CERCLA. Our hope is also that 1984 will be the year when Congress expressly acknowledges the critical importance of our concerns about the international competitive impacts of environmental regulation and begins to strive with us to eliminate or minimize those impacts.

Mr. GIBBONS. We better hear from the other gentleman first.

Mr. MITCHELL. The nice thing I will be able to say when I go home I can say I had a private audience with the Ways and Means Committee.

Mr. GIBBONS. Absolutely, the ones who will make the decision anyway.

Mr. CONABLE. Of course—wait, I don't want that responsibility.

STATEMENT OF DONALD P. MITCHELL, VICE PRESIDENT, PROCESSING AND MARKETING, LOUISIANA LAND & EXPLORATION CO.

Mr. MITCHELL. I am Donald P. Mitchell, I am the vice president of processing and marketing for the Louisiana Land & Exploration Co. headquartered in New Orleans. I am here today to express our concern over the amendments proposed in the bill—the amendment anyway to the Comprehensive Environmental Response and Liability Act of 1980, CERCLA, which created the Superfund tax.

We are here because our company is the owner-operator for a small independent refinery located at Mobile, AL, which processes approximately 50,000 BPD of crude oil, which basically results in a production of 23,000 BPD of various grades of gasoline. Our company has been in the refining business since 1975, or approximately 9 years. This refinery, as an operating entity over this time period, generates no toxic wastes or dump problems as contemplated under CERCLA. Nevertheless, we have been assessed with a portion of the taxable responsibility generated by CERCLA.

Under the proposed amendments to CERCLA, our excise tax liability on our refinery would increase by 14 times over our current liability. We feel that our company, as well as others in the petroleum industry involved in the refining of motor fuels, is being singled out to bear an unfair portion of the cleanup liability. The refining of motor fuels does not result in the creation of environmentally unsafe conditions that would require the imposition of a harsh tax to fund cleanup expenditures. Motor fuels are burned in cars and trucks and pass into the atmosphere without the need for subsequent cleanup. Hazardous waste dumpsites, such as Love Canal, which require large expenditures are not the result of motor fuel refining.

In the past, the petroleum refining industry's profitability has been inconsistent. Today refineries are struggling to stay open in a highly competitive, low profit margin business. During the last 4 years, approximately 86 refineries have closed. The major portion of these are small refineries. As I say our operation generates about 23,000 barrels of refined gasoline per day. This would add approximately a half cent per gallon to the cost of producing gasoline. The imposition of even a fraction of a penny has a significant economic impact when the margins are low and the volumes are high.

Currently, our refinery is operating at a loss. The proposed amendments will add roughly $1.7 million a year in excise tax alone to the cost of doing business, resulting in further losses. This figure does not include expensive administrative costs which will be incurred to comply with the tax. The imposition of this tax could make it economically unfeasible for us and numerous other small and independent refineries to continue business, resulting in lost jobs and an increased burden on the general taxpayers, and ironically, if we go out of business, diminished funding for Super fund.

In the past the independent refining sector has represented small local constituencies by taking care of their problems and has essentially fostered competition in the sale of petroleum products.

Under the original Superfund bill Congress at least gave some study to the relative relationship between petroleum, petrochemicals, and organics as to who would bear the economic burden of generating revenues for Superfund. Since it appears the total Superfund revenues have gone up about five times, and our own exposure has been increased by about 14 times, this distribution and responsibility somehow has been abrogated.

The EPA is currently considering banning the use of lead in gasoline as an octane booster. This would result in an increased cost for gasoline since other ingredients, such as benzene, toluene, and xylene, for boosting octane are more expensive. Again, small refiners will be hit harder because they will have to purchase these chemicals from outside sources. Large refiners on the other hand are more likely to be able to produce these chemicals, thereby creating inequity between large and small refineries.

One of the things I have found quite interesting today has been the anticipated cost of $3.2 billion necessary to clean up some 300,000 underground tanks.

It would seem to me like an amount of money of this tremendous size should be able to be funded by those people who own these underground tanks. They should be able to be located and it would seem to me like some sort of taxing system like a tank tax or something like that could be allocated to these people and at least remove some substantive part of the taxes being imposed.

In short, I think the problem is large, it needs study, the amounts have been discussed ad nauseum this afternoon and today and I won't go into that but imposition of these taxes on small refining operations such as ours are large to us and will have very substantive impact on our ability to survive in our business.

Thank you.

[The prepared statement follows:]

STATEMENT OF DONALD P. MITCHELL, VICE PRESIDENT, PROCESSING AND MARKETING, LOUISIANA LAND & EXPLORATION CO.

My name is Donald P. Mitchell, and I am Vice President of Processing and Marketing for The Louisiana Land and Exploration Company. I am here to express our concern over the amendments proposed in H.R. 5640 to the Comprehensive Environmental Response and Liability Act of 1980 (CERCLA), which created the "Superfund Tax".

We are here because our company is the owner-operator for a small independent refinery located at Mobile, Alabama, which processes approximately 50,000 BPD of crude oil, which basically results in a production of 23,000 BPD of various grades of gasoline. Our company has been in the refining business since 1975, or approximately nine years. This refinery, as an operating entity over this time period, generates no toxic wastes or dump problems as contemplated under CERCLA. Nevertheless, we have been assessed with a portion of the taxable responsibility generated by CERCLA. Under the proposed amendments to CERCLA, our excise tax liability our refinery would increase by 14 times over our current liability. We feel that our company, as well as others in the petroleum industry involved in the refining of motor fuels, is being singled out to bear an unfair portion of the clean-up liability. The refining of motor fuels does not result in the creation of environmentally unsafe conditions that would require the imposition of a harsh tax to fund clean-up expenditures. Motor fuels are burned in cars and trucks and pass into the atmosphere without the need for subsequent clean-up. Hazardous waste dumpsites, such as Love Canal, which require large expenditures are not the result of motor fuel refining.

The current Superfund Tax does not expire for over a year. Section 301(a) of CERCLA mandates the preparation of a report concerning the effects of implementation of CERCLA. This report is due out by December 11, 1984. We feel that Congress should not hastily enact a new Superfund Tax that increases the tax over sixfold without adequately studying funding requirements and allocations of liability. Adequate time still exists to conduct a study as to future funding needs, which parties are the contributors to an unsafe environmental hazard, to what extent they are responsible, and to what extent recoveries should be made from them.

In the past, the petroleum refining industry's profitability has been inconsistent. Today refineries are struggling to stay open in a highly competitive, low-profit margin business. During the last four years, approximately 86 refineries have closed. The major portion of these are small refineries. As previously noted, our company owns a small independent refinery in Mobile, Alabama, which processes approximately 50,000 barrels of crude oil per day, resulting in about 23,000 barrels of refined gasoline per day. H.R. 5640 would add approximately one-half cent per gallon to the cost of producing gasoline. The imposition of even a fraction of a penny has a significant economic impact when the margins are low and the volumes are high. Currently, our refinery is operating at a loss. The proposed amendments will add $1.7 million a year in excise tax alone to the cost of doing business, resulting in further losses. This figure does not include expensive administrative costs which will be incurred to comply with the tax. The imposition of this tax could make it economically unfeasible for us and numerous other refineries to continue business, resulting in lost jobs and an increased burden on the general taxpayers, and, ironically, diminished funding for Superfund.

Under the original Superfund bill, Congress at least gave some study to the relative relationship among petroleum, petrochemicals and inorganics, as to who should bear the economic burden of generating revenues for Superfund. Since it appears that total Superfund revenues have gone up about five times and our own exposure has increased by about 14 times, this distribution as to responsibility has been abrogated.

The Environmental Protection Agency is currently considering banning the use of lead in gasoline as a octane booster. This would result in an increased cost for gasoline since other ingredients, such a benzene, toluene, and xylene, for boosting octane are more expensive. These same ingredients, which are necessary to boost the octane of gasoline without adding lead, will be subject to the chemical tax under H.R. 5640, thereby further increasing the cost to refiners. Again, small refiners will be hit harder because they will have to purchase these chemicals from outside sources. Large refiners on the other hand are more likely to be able to produce these chemicals, thereby creating inequity between large and small refineries.

In summary, we recognize the need for more effective spending and increased funding. However, we feel that the tax burden should be borne by those in proportion to their contribution to the clean-up problem. Additional information is becoming available every day. To act now, while sufficient time remains to adequately study the need for increased funding and to ascertain who are the contributors to environmental hazards, will inequitably impose a harsh tax on those who are not responsible for the current problems.

We urge you to delay any action on this matter until all the facts are available and proper judgments as to total necessary funding, responsibility, and liability can be made.

Mr. GIBBONS. Thank you, sir.

Now, do we have the last witness here, Mr. Lawson?

If not, you not only get a private audience with the Ways and Means Committee, Mr. Mitchell, but you have had the last word.

Mr. MITCHELL. Well thank you.

[The statement of Mr. Lawson follows:]

STATEMENT OF LOUIS R. LAWSON, JR., ON BEHALF OF SOLITE CORP.

Mr. Chairman and members of the Committee, my name is Louis R. Lawson, and I am Fuels Division Manager and Research Coordinator for Solite Corporation, with headquarters in Richmond, Virginia.

I am appearing before you today in support of the energy recovery exemption to the waste-end tax recommend by the Committee on Energy and Commerce. The exemption is proposed for Section 4682 of the Bill.

Solite and its subsidiaries are engaged in the manufacture of lightweight aggregate, a product used by the construction industry in concrete and in lightweight masonry blocks. Lightweight aggregate is produced in rotary kilns through the application of intense heat to expand crushed clay, slate or shale. Lightweight aggregate weighs approximately half as much as crushed stone. Solite and its subsidiaries use large amounts of hazardous wastes consisting principally of industrial solvents and waste oils as fuels in the manufacture of lightweight aggregate. Solite and its subsidiaries have safely burned over 77 million gallons of hazardous wastes as fuels since 1976. The foregoing amounts to a savings of 55 million gallons of oil or 310 thousand tons of coal.

An energy recovery exemption such as that proposed by the Commerce Committee would not only help to promote and encourage the safe and efficient destruction of hazardous waste for energy recovery, but also help to ensure that cost-effective waste fuels would continue to be available to fuel-intensive manufacturing facilities such as those in the lightweight aggregate, cement, iron, steel, lime and phosphate industries.

Tests conducted under the supervision of the U.S. Environmental Protection Agency (USEPA) at one of Solite's lightweight aggregate facilities have demonstrated that Solite's kilns consistently achieve a hazardous waste destruction and removal efficiency in excess of the 99.99% destruction and removal efficiency required by the USEPA. Attached to my written comments as Attachment A is a brief summary of the Solite test findings prepared by Monsanto Research Corporation, which performed the tests under contract to the USEPA. The Solite testing program was one in a series of 30 test programs conducted by the USEPA on a wide variety of industrial furnaces and industrial boilers throughout the United States. The testing demonstrated that these furnaces and boiler generally achieved destruction and removal efficiencies of 99.99% or greater, thereby safety destroying the wastes while conserving our Nation's natural gas, oil, and coal resources. These tests supported the USEPA's earlier belief that there is sufficient existing industrial furnace and boiler capacity to safely destroy all of the burnable hazardous wastes generated in the United States today and for the forseeable future.

Companies such as Solite can afford to continue to use hazardous wastes as fuels only as long as the costs of the wastes is less than the cost of conventional fuels such as oil and coal. The imposition of a waste-end tax on hazardous wastes burned for energy recovery would have a significant adverse impact on the cost-effectiveness of burning hazardous wastes in place of fossil fuels in the manufacture of products such as lightweight aggregate, cement, iron, steel, lime, and phosphate. The fee would add to the cost of burning industrial solvents and waste oils, and, along with the other costs of burning these waste fuels, narrow further the gap between the cost of burning waste fuels and the cost of burning conventional fuels. It is clear, therefore, that the ultimate impact of a waste-end fee on hazardous wastes used as fuels will be to discourage their use for energy recovery. The result would be extremely unfortunate, not only for the industries that rely on these waste fuels to hold down production costs, but also for the environment and natural resources in our Nation. Millions of gallons of burnable hazardous wastes that otherwise would have been safety destroyed would be disposed of either improperly or by methods less productive of the environment than high-temperature thermal destruction. Further, millions of gallons of imported oil would be burned needlessly.

As you know, H.R. 5640 contains an exemption from the tax for the incineration of hazardous wastes. You may also know that the USEPA does not include energy recovery in the definition of incineration. We believe it does not make sense to exempt from the waste-end tax the incineration of hazardous wastes where the energy value of the material is wasted while imposing a tax on energy recovery facilities, particularly where the energy recovery facilities are just as efficient at destroying hazardous wastes as incinerators.

Imposing a tax on energy recovery facilities while exempting from the tax incineration facilities clearly would be counter-productive to the purpose of Superfund. Unlike incinerators, energy recovery facilities such as the Solite lightweight aggregate plants are in the business of making a product, not disposing of hazardous wastes. Accordingly, they don't need to make a profit from burning hazardous wastes. The foregoing permits energy recovery facilities to either pay generators for their wastes or to take the wastes at little or no cost to the generator. Therefore, generators are encouraged to properly dispose of their hazardous wastes. Again, a waste-end tax on energy recovery facilities would force many energy recovery facilities off of hazardous wastes, leaving waste generators with expensive incinerators and landfills as their only disposal options. We are confident that the increased costs of these other options will result in many generators disposing of their wastes using less expensive, more environmentally harmful alternatives.

The net effect of imposing a waste-end tax on energy recovery facilities while exempting incinerators would be to undermine competitions in the market for hazardous wastes, thereby driving up the cost of hazardous waste disposal aand encouraging "midnight dumping" and other improper disposal activities. Superfund and the waste-end fee are designed to help prevent this result.

The waste-end tax is designed to recongize the connection between the sources of abandoned hazardous waste disposal sites and the need to expend public funds to clean up these sites. There is no such connection for energy recovery facilties. On the contrary, it is apparent that without energy recovery facilities there would be far more abandoned hazardous waste sites than actually exist today.

The exemption recommended by the Commerce Committee is extremely narrow in scope, exempting only those energy recovery facilities that are regulated under subtitle C of the Solid Waste Disposal Act and that have demonstrated that they are capable of achieving the 99.99% destruction and removal efficiency required by the USEPA for incinerators.

We recognize that the recommended energy recovery exemption language is susceptible to interpretations that could defeat its purpose. Accordingly, we believe it will be extremely important for the Committee to include in the Committee report clarifying language. We have taken the liberty of attaching to my written statement as Attachment B, proposed language for clarifying the exemption to ensure that the only facilities that are exempted are those that are regulated under subtitle C of the Solid Waste Disposal Act and have demonstrated that they are capable of achieving the 99.99% destruction and removal efficiency required by the USEPA.

I appreciate the opportunity to appear before you today, and I will be happy to answer any questions.

[Attachment A]

INCINERATION OF HAZARDOUS WASTE IN AGGREGATE KILNS [1]

(By James A. Peters and Duane R. Day, Monsanto Research Corp., Dayton, OH; Robert E. Mournighan, U.S. Environmental Protection Agency, Cincinnati, OH)

A high temperature (2000 degrees F) light-weight aggregate kiln was tested in Florida to measure the major smoke stack emissions from burning hazardous waste as supplemental fuel for energy recovery. Emissions measured included principle organic hazardous components (POHC's: toluene tetrachloroethylene, methyl ethyl ketone, and methyl isobutyl ketone), particulate matter, trace metals, hydrochloric acid, sulfur dioxide, and nitrogen oxides. The wastes were burned with destruction efficiencies beyond the 99.99% required by the Environmental Protection Agency. Other pollutants in the smoke stack emissions were found in very limited quantities. None were considered dangerous to the environment or to the health and safety of operating personnel and the public. The tests showed that it is environmentally safe to burn some ignitible wastes as fuel in rotary kilns. There were no emissions dangerous to operating personnel or threatening to the public health and safety.

[Attachment B]

Energy recovery facilities are not now regulated pursuant to subtitle C, and therefore under the language of section 4681 would not be subject to the tax until such time as they are regulated. The exemption for energy recovery facilities offered by Mr. Bliley on page 59 after line 13 would provide for their continued exemption from the tax in the event that energy recovery facilities are regulated in the future under subtitle C.

The exemption applies only to energy recovery facilities that have demonstrated through one or more EPA-commissioned studies to be capable of achieving the 99.99% destruction and removal efficiency currently required by EPA for hazardous waste incinerators. The reference to "such destruction efficiency standards" in the exemption refers to the 99.99% destruction and removal efficiency standard currently required by EPA for hazardous waste incinerators. The 99.99% destruction and removal efficiency requirement in the exemption is satisfied where the EPA-commissioned study shows that the facility is capable of achieving an average destruction and removal efficiency of 99.9% for the principal organic hazardous constituents (POHCs) usually found in the facility's waste fuels and identified as POHCs in that particular study.

---

[1] Presented at the Tenth Annual Research Symposium on Incineration sponsored by the Environmental Protection Agency, April 3-5, 1984.

The study may be performed by either EPA or by a private firm or organization under contract to EPA. The study may have been performed while the facility was operating entirely on hazardous substances or a combinaton of hazardous substances and fossil fuels. The study need be performed only once and may have been performed at any time either before or after the adoption of the exemption. Also, energy recovery facilities engaged in substantially similar manufacturing operations as those facilities on which EPA-commissioned studies have been performed will qualify for the exemption. For example, where an EPA-commissioned study at a manufacturing facility using hazardous substances as a fuel in the manufacture of lightweight aggregate in rotary kilns shows that that facility is capable of achieving the 99.99% destruction and removal efficiency, all substantially similar lightweight aggregate facilities using hazardous substances as a fuel would qualify for the exemption.

Mr. GIBBONS. With that, that concludes the hearing of the Ways and Means Committee on the tax provisions of the Superfund. We will next go into deliberations.

I thank everyone for coming. Good night.

[Whereupon, at 8:20 p.m., the hearing was adjourned.]

[Submissions for the record follow:]

AMERICAN IRON & STEEL INSTITUTE,
Washington, DC, July 20, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Committee on Ways and Means, House of Representatives, Longworth House Office Building, Washington, DC.

DEAR MR. ROSTENKOWSKI: The Amderican Iron and Steel Institute (AISI), the principal trade association representing the iron and steel industry, whose 56 domestic member companies account for 85 percent of the steel produced in the United States, submits for your consideration our views on the proposed Superfund reauthorization legislation, H.R. 5640, as reported by the House Committee on Energy and Commerce.

AISI supports reauthorization of Superfund and an equitable and efficiently administered program to clean up sites where hazardous substances threaten public health or the environment. H.R. 5640 as reported out of the Committee on Energy and Commerce, however, contains funding provisions which we believe are excessive and inequitable. The taxes proposed on certain materials are far out of proportion to the environmental damage that could be attributed to these materials. Specific comments on these issues follow.

FUNDING REQUIREMENTS

Obviously, the level of Superfund taxation will be strongly influenced by the funding needs anticipated by Congress. We share the concern expressed by EPA Assistant Administrator Lee Thomas[1] that an excessive rate of funding, while speeding up the Superfund program, would increase the potential for administrative waste, and that such expansion of response activities might "limit [their] capability to manage the program." Further, he stated that, "Accelerating the program pace more than we are already doing could also reduce drastically the level of State participation in the Superfund program." In an April 30, 1984 interview,[2] EPA Administrator Ruckelshaus reiterated EPA's concerns, stating that EPA probably could not efficiently spend more than $800 million to $1.2 billion per year after 1985. As written, H.R. 5640 would raise about $1.8 billion per year.

Therefore, AISI recommends that H.R. 5640 be amended in a manner which would be expected to raise about $1.2 billion annually, but also give EPA the ability to borrow up to $0.8 billion annually should the need arise.[3] Further, AISI recommends that enactment of any Superfund taxation system await completion and evaluation of the study of the feasibility and desirability of various taxation systems required by § 301(a)(1) of the current Superfund law (CERCLA).

---

[1] Statement Before Committee on Environment and Public Works, United States Senate, April 25, 1984.

[2] *Environment Reporter—Current Developments,* p. 5, May 4, 1984.

[3] See, for example, the amendment proposed by Rep. Tauzin for consideration by the Subcommittee on Commerce, Transportation and Tourism of House Committee on Energy and Commerce during markup of H.R. 5640.

UNDERGROUND INJECTION

Application of a waste end tax to hazardous wastes injected into suitable underground formations is a disincentive to underground injection which is one of the safest and surest methods of hazardous waste disposal.[4] Note that steel industry underground injection wells are not associated with any Superfund site. If overly taxed, wastes now being injected might alternately be handled by surface treatment techniques with potential for greater environmental damage. For example, waste water treatment plants would generate dissolved salts that would be an added load to receiving streams and sludges that would require additional space at disposal sites, contrary to congressional and EPA intent to reduce land disposal of hazardous wastes. Therefore, the imposition of any waste end tax on such wastes is questionable.

Even more questionable is the taxation of water rather than the actual hazardous components of injected fluids. There is no justification for imposition of heavy hazardous waste disposal taxes on water, and most materials injected underground are primarily water. Wastes injected by the steel industry are 80–96 percent water. Therefore, if there be a tax, it should be based on the dry weight of the material injected. This would be similar to the tax presently supporting the Post Closure Liability Trust Fund (26 U.S.C. § 4681(b)).

If, contrary to these recommendations, a tax is to be imposed on materials disposed in underground injection wells, then AISI recommends that the Ways and Means Committee adopt the recommendation of the Committee on Energy and Commerce with regard to § 503(a) of H.R. 5640 reducing the tax on underground injection wells to $5 per metric ton of waste disposed (Amendment #24 offered June 20, 1984 by Mr. Ralph M. Hall). Without this amendment, materials reportable under Superfund at one pound or less would be taxed at $15 per metric ton, while only those reportable at more than one pound are taxed at the $5 rate. This amendment would be less equitable than imposition of no tax or imposition of a tax only on the dry weight of the material injected, but would be more reasonable than the $15 tax incorporated in H.R. 5640.

FEEDSTOCK TAX ON ZINC

Section 504(a) of H.R. 5640 imposes taxes on certain materials based on connections between those materials or their derivatives and Superfund sites. One of the listed materials is the metal zinc. The steel industry is a large user of zinc, primarily for galvanizing, using more than 360,000 tons (326,000 metric tons) of zinc metal per year[5] based on 1983 consumption, and as such is concerned about the $14.94 per ton tax that would be levied on zinc.

While it is conceivable that certain chemicals containing zinc might be hazardous, it is highly unlikely that zinc in its metallic form is toxic or hazardous or contributes to the creation of hazardous waste sites. Therefore, we recommend that "zinc" be deleted from the listing in § 504(a) and replaced with "zinc chloride" and "zinc sulfate."

We ask that you give these comments your careful consideration in reviewing H.R. 5640 or other Superfund reauthorization legislation. If you have any questions, please do not hesitate to contact this office.

E.F. YOUNG, Jr.,
Vice President, Energy and Environment.

AMERICAN MINING CONGRESS,
Washington, DC, July 30, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Committee on Ways and Means, House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: I am writing to you to express the views of the American Mining Congress (AMC) regarding H.R. 5640, the "Superfund Expansion and Protection Act of 1984," the subject of your committee's July 25 hearings. Many of the provisions of that bill, particularly in Title V dealing with the funding of the Superfund, will have a direct impact on the American mining and minerals processing industry. On behalf of that industry, AMC wishes to address specific points raised both by the language of H.R. 5640 and the amendments to Title V recommended by the House Energy and Commerce Committee during its markup of the bill on June 19 and 20.

---

[4] See "Hazardous Waste Disposal Methods, Major Problems with Their Use," Comptroller General of the United States, November 1980. See also "Underground Injection Control Techniques Assistance Manual," Texas Department of Water Resources, April, 1983.

[5] Mineral Industry Surveys, U.S. Department of the Interior, Bureau of Mines, p. 5, July 12, 1984.

AMC is an industry association that encompasses (1) producers of most of America's metals, coal, and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies, and (3) engineering and consulting firms and financial institutions that serve the mining industry. In testimony to both the House Subcommittee on Commerce, Transportation and Tourism (March 1, 1984) and the Senate Committee on Environment and Public Works (May 23, 1984), AMC has supported reauthorization of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund). Copies of the AMC testimony are enclosed as Appendices A and B.

Underlying the mining industry's concern with proposed funding mechanisms for CERCLA are several key points. As your committee considers the funding approaches in H.R. 5640, AMC urges that these key points be kept in mind:

1. *Domestic metals prices are largely determined on the highly competitive, international market (and not by domestic producers), causing an unfair burden on the domestic industry whenever government-mandated costs do not fall equally on imports.* The continued ability of mines and mineral processors in the United States to produce metals, including strategic materials, is dependent upon the industry's competitiveness with foreign producers and, in particular, the industry's ability to absorb additional costs not borne by foreign competitors. The market prices for metals are a function of the international metals markets and therefore are strongly influenced by the production costs of foreign producers. As a result, U.S. producers cannot pass mandated costs on to customers via price increases. This requires the costs to be internalized, resulting in a weakened competitive position. Congress clearly recognized this situation in 1980 and deleted copper, lead and zinc metals from the list of taxable chemicals. There has been no fundamental improvement in the competitive position of U.S. producers in the intervening years. Indeed, after two years of general economic recovery, the metals industry remains under severe economic stress. The concern demonstrated by the Congress in 1980 for the industry's competitive survival remains valid in 1984.

2. *Unless carefully constructed, any feedstock or waste-end tax could have serious, unintended and inequitable effects on the domestic mining and mineral processing industry because of the unique economic circumstances of the minerals industry and the differences between its wastes and the wastes of many other industries.* H.R. 5640 imposes a waste-end tax on the disposal of hazardous waste, the tax rates varying according to the method of disposal and the "reportable quantity" assigned by Congress or the Environmental Protection Agency (EPA) to the specific waste. The Energy and Commerce Committee determined that this tax should not apply to solid wastes from the extraction, beneficiation or processing of ores and minerals. See H.R. 5640, section 503(a).

AMC strongly supports the approach taken by H.R. 5640 on this point. As the Energy and Commerce Committee report states: "These materials are currently under study by EPA pursuant to the 1980 Solid Waste Disposal Act Amendments, and under section 503 of the bill. No tax should be imposed on these wastes until the study is complete and the Congress enacts a new law to tax such wastes."

The exemption of mining and mineral processing wastes is essential since:

(1) There has been no determination that any of these wastes are hazardous;

(2) The industry produces large (e.g. over a billion tons per year) tonnages of wastes containing small quantities of materials that might be administratively considered hazardous, and

(3) A tax on these large quantities of relatively nonhazardous wastes could severely damage the U.S. industry, particularly in its competitive relationship with overseas producers who would not be subject to such a tax.

As to H.R. 5640's proposed feedstock tax, our industry continues to have very serious concerns with the wisdom and propriety of taxing not only those metals and minerals currently taxed by CERCLA but with adding additional metals and minerals to the list of taxable substances. AMC suggests that there are compelling reasons to defer a final decision on taxing such materials.

The international market determines prices of U.S. producers. It therefore is difficult if not impossible to pass on in the product price any added costs such as CERCLA taxes. The fundamentally unimproved economic situation of domestic producers was noted above. That situation dictates that, if CERCLA taxes are imposed, American producers will be put at an even greater competitive disadvantage than is currently the case.

Furthermore, H.R. 5640's expanded list of taxable materials apparently is based on the presumption that all sites on the National Priorities List (NPL) present hazards to human health. There is a further presumption that, if certain metals are found at NPL sites, they are inherently harmful and should be taxed. As stated in previous AMC testimony (see Appendices A and B), these assumptions are not correct for mining wastes.

In constructing the list of taxable materials in H.R. 5640, proponents of the list apparently relied upon draft documents prepared for the EPA by ICF, Inc., to justify including a number of metals on that list. Those documents were only drafts, had not received any EPA approval or even a rigorous peer review, and consequently should not be relied upon to formulate taxing decisions of such enormous impact on our industry.

We urge that any final decision on whether or not to tax any metals, and at what rates, await receipt of the President's report on exempt substances. That report is mandated by Congress under section 301 of the current CERCLA and is to be submitted to Congress no later than this coming December. EPA is working on that report; indeed, the draft ICF documents referred to above are part of the first stages of work on that report. To utilize such draft materials at this time would be to take questionable data out of the context of the not yet completed final report.

SPECIFIC AMENDMENTS RECOMMENDED BY THE COMMITTEE ON ENERGY AND COMMERCE

1. AMC strongly supports the recommended amendment (No. 28) offered by Congressman Tauzin to section 504 of H.R. 5640, as that amendment applies to nonferrous metals. We urge the Committee on Ways and Means to adopt the recommended amendment as a rational expression of taxing policy for CERCLA. The amendment would make it more difficult to evade taxes on taxable nonferrous metals constituting five percent or more of an imported alloy or compound, reconfirm congressional intent not to impose feedstock taxes on in-process materials that appear (sometimes only transitorily) during the nonferrous metals production cycle, and help preserve a diminished American export capacity. We address these provisions more specifically below.

A. Taxation of nonferrous metals

This subsection of the recommended amendment recognizes that any tax, particularly one of the magnitude proposed in H.R. 5640's feedstock tax provisions, will impact the market system. One way in which that impact would likely appear is for importers of taxable chemicals to switch from importing the directly-taxable chemicals to importing products that are derived from those chemicals. For example, instead of importing lead or zinc (themselves taxable chemicals under the current approach taken by H.R. 5640), importers could import alloys, compounds or fabricated mill products derived from lead or zinc. Those alloys, compounds or fabricated mill products, since they are not specifically listed as taxable chemicals, would not bear any tax upon their importation into the U.S.

Domestic producers, on the other hand, would have to bear the burden of the taxable lead and zinc components of their alloys and compounds. In effect, there would exist a federal tax subsidization of foreign nonferrous metals products at the expense of the domestic industry.

The recommended amendment would prevent such a development through the imposition of a reasonable tax following rational presently-existing criteria. It would be an important step toward an even-handed approach to CERCLA taxation, and it would provide additional funds for CERCLA.

B. In-process materials

When it originally enacted CERCLA in 1980, Congress intended that no tax be levied on listed nonferrous metals until such metal was produced and sold or produced and used in its commercial form. That intent extended to the listed nonferrous compounds as well; those compounds were not to be taxed until they were produced and sold or produced and used in commercial form in a sale-like transaction.

Congress has confirmed its original intent on this issue in P.L. 98-369, signed into law by President Reagan July 19. Indeed, during consideration of that legislation, the Internal Revenue Service agreed that the correction in the Internal Revenue Code was a technical one necessary to carry out the original intent of Congress. Recommended amendment No. 28 simply carries forward this now clearly-declared intention.

AMC urges the Ways and Means Committee to adopt this section with one further clarifying amendment. As written, section 4662(b)(5)(B)(ii) reads (in part): ". . . The removal by any person for use, sale or disposal of any chemical compound containing nonferrous metal which is listed under section 4661(a) . . . shall be subject to tax under section 4661(a)."

The mining and minerals processing industry strongly recommends the deletion of the words "sale or disposal" and the insertion of "or sale." Such action is in total accord with Congress' intent that feedstock taxes be levied on the production and *sale* or production and *use* of the feedstock, not on the disposal of such a feedstock. Indeed, if the tax were to be levied on the disposal of a feedstock or compounds containing a feedstock, the result would be a *de facto* waste-end tax on much of the nonferrous mining and minerals processing industry. Such a result is clearly not intended by the drafters of H.R. 5640 who specifically exempted from such a waste-end tax solid waste from the extraction, beneficiation and processing of ores and minerals. See section 503, H.R. 5640, proposed Internal Revenue Code section 4682(3).

C. Refund or credit for exports

The recommended amendment, true to its realistic approach to other issues, also realizes that whatever bases exist for American exports should be preserved. While no single amendment in legislation of this type can provide the overall impetus needed for American exports, the recommended amendment takes a step in the right direction by amending Internal Revenue Code section 4662(d)(1) to provide a tax refund or credit for those taxable chemicals produced and exported. Such an approach is particularly welcome to the hard-pressed American mining and minerals processing industry. As noted earlier, and as brought out in more detail in Appendices A and B, the domestic industry must complete in an international market, frequently against subsidized foreign competitors. While the domestic industry currently is not a major exporter, those export bases that remain should be preserved and, where possible, expanded.

2. AMC strongly objects to the recommended amendment (No. 27) offered by Congressman Wyden and modified by Congressional Florio's recommended amendment (No. 27A). This amendment to section 504 of H.R. 5640 would allow a 50 percent reduction of the feedstock tax rate for any listed taxable metals that were produced by recycling. Not only is there no adequate justification for such a massive loss of CERCLA tax revenues, but the provision could also create serious competitive disparities among existing sectors of the industry.

Metal produced from primary and secondary sources is often indistinguishable and, in some instances, the same furnaces produce both primary and secondary metals. The recommended amendment, therefore, would give an unwarranted competitive advantage to secondary producers, who utilize scrap metals and materials as their feedstock, over primary producers, who produce metals from mineral-bearing ore.

Furthermore, importers of metals would be able to claim that those metals were produced in recycling operations and were therefore eligible for the proposed 50 percent reduction in taxes. The IRS and Customs Service would be unable to verify such claims without massive expenditures of personnel, time and money.

AMC urges the committee not to adopt the recommended amendment.

Finally, Mr. Chairman, the American Mining Congress thanks you and the members of the Ways and Means Committee for the opportunity to submit this statement. Should you or any of the committee members or staff have additional questions regarding the effects of the funding provisions of H.R. 5640 on the American mining and minerals processing industry, we would be happy to respond.

Sincerely,

J. ALLEN OVERTON, Jr.,
President.

Enclosures.

APPENDIX A

STATEMENT OF PETER KEPLER, VICE PRESIDENT AND GENERAL COUNSEL, AMAX ENVIRONMENTAL SERVICES, INC. ON BEHALF OF THE AMERICAN MINING CONGRESS BEFORE THE U.S. HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON COMMERCE, TRANSPORTATION AND TOURISM HEARING ON H.R. 4813, COMPREHENSIVE HAZARDOUS SUBSTANCES CLEANUP AND EMERGENCY RELIEF ACT OF 1984, MARCH 1, 1984

Good afternoon. My name is Peter Kepler. I am Vice President and General Counsel of AMAX Environmental Services, Inc. I am appearing today on behalf of the American Mining Congress (AMC).

AMC is an industry association that encompasses (1) producers of most of America's metals, coal, and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies, and (3) engineering and consulting firms and financial institutions that serve the mining industry. AMC appreciates the opportunity to share with the subcommittee some of our industry's considerations regarding the reauthorization of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) and recently introduced reauthorization legislation.

At the outset, AMC wishes to note that there have been expressions of concern in the past that the mining industry has not paid its "fair share" of Superfund taxes. Some parties have been under the even more mistaken impression that the mining industry has paid no taxes at all. The fact is that the mining industry has, since April 1, 1981, paid Superfund taxes when they were due and owing under current law. Our industry's contributions, by our own unofficial calculations, appear equivalent to the number of mining-related sites on the National Priorities List—about four percent.

The mining industry is prepared to work with Congress and the Administration to develop an effective means of addressing problems that exist arising out of mining activity of the past.

The nature, volume and toxicity of mining and mineral processing wastes differ significantly from wastes generated by other industries. These factors, as well as others, create special problems and consequences for addressing abandoned mine sites and mining wastes under CERCLA. These differences need to be taken into account in any legislation to amend CERCLA. Among the most important factors that distinguish mining, mineral processing and their wastes from those of other industries are those set out in this statement.

KEY POINTS

(1) Mining and mineral processing generates extremely high volumes (i.e. billions of tons) of wastes that exhibit little or no toxicity.

(2) Mining and mineral processing waste disposal practices other than landfill and/or surface impoundments are infeasible, except for certain relatively small quantity wastes.

(3) Domestic metals prices are largely determined on the highly competitive international market (and not by domestic producers), causing an unfair burden on the domestic industry whenever government mandated costs do not fall equally on imports.

(4) Unless carefully constructed, any "front-end" or "waste-end" tax could have serious, unintended and inequitable effects on the domestic mining and mineral processing industry because of the unique economic circumstances of the minerals industry and the differences between its wastes and the wastes of many other industries.

(5) Because of the large volumes and low toxicity of mining and mineral processing waste and other key factors, the current EPA Hazard Ranking System is inappropriate for mining and mineral processing sites.

(6) Domestic minerals extraction and processing activities have occurred continually in the U.S., pre-dating the Revolutionary War. As a consequence, the chain of ownership for many sites is difficult if not impossible to establish, making it impossible to allocate fairly the responsibility for remedial action.

(7) Victim compensation provisons should not at this time be included in CERCLA legislation. Appropriate studies must be completed prior to any legislative action on this aspect of industrial wastes.

DISCUSSION

In the debate leading to the passage of CERCLA in 1980, Congress emphasized the need for cleaning up the problems associated with chemical waste disposal. Congress did not conclude that conventional mining and mineral processing wastes posed an equivalent potential danger to public health, and in fact recognized the need for special consideration for mining and mineral processing wastes.

There are many significant differences between wastes from mining and mineral processing operations and those wastes generated by many other industries. The most important differences are in the volumes of wastes generated, their stability and their degree of toxicity to life forms.

Mining and mineral processing generally utilize low grade ores, which result in the production of very large volumes of waste rock, overburden, slag and tailings—that because of the presence of minor amounts of metals in the natural rock matrix, may sometimes be administratively classified as "hazardous" even though they exhibit little or no toxicity.

There are other industries that generate relatively small amounts of residuals, but residuals that in themselves or by the presence of chemical contaminants are hazardous and may be extremely toxic in miniscule amounts to human and other life forms. These are the materials that were the focus of Superfund, not the mining industry, which does not generate such wastes.

It is essential that the differences between mining and mineral processing wastes, on the one hand, and wastes that present a substantially greater risk of toxicity, on the other, be reflected in any amendments to CERCLA.

For the following reasons it can be concluded that, although mining and mineral processing wastes may be part of the overall environmental issue of prudent waste management, they are not significant in terms of relative impact on public health when compared to the many other industrial wastes that were the principal concern of Congress when CERCLA was enacted.

(1) *Mining and mineral processing generate extremely high volumes (i.e. billions of tons) of wastes exhibiting little or no toxicity.*—Massive volumes of waste are produced annually at mining and mineral processing facilities. For example, in 1973 (selected as "typical" of U.S. annual mine production), rough estimates are that the mining industry produced 486 million tons of tailings, 6.8 million tons of slag, and 1.25 billion tons of waste rock. This total of approximately 1.75 billion tons can be compared to other industries' estimated 40–140 million annual tons of regulated hazardous wastes.

Mining and mineral processing wastes consist essentially of uncontaminated soil and rock together with processed rocks from which the mineral being mined has been removed. In this very large volume of inert mine waste, most heavy metal constituents, if present at all, are present in extremely low concentrations. Even when present, these constituents are nearly always present in insoluble forms. Because of the low concentrations and insolubility, the constituents in the waste do not tend to migrate into the environment and do not present a significant risk to human health. The situation in the mining and mineral processing industry is therefore far different from that in many other industries wherein low-volume but high-hazard wastes are more frequently encountered.

(2) *Mining and mineral processing waste disposal practices other than landfill and suface impoundments are infeasible, except for certain relatively small quantity wastes.*—Recycling of mining and mineral processing wastes, such as through additional recovery of very small metals values in waste rock, slag, or tailings, is heavily dependent upon development of new extraction technology, as well as a significant change in economics, which will not occur in the near future.

The amount of waste generated by a mining operation is determined by the grade of the ore deposit being mined. A typical low-grade ore body absolutely requires the economies of large-scale production. As a result, the mining and mineral processing industry has little control over the amount of waste it produces.

Consequently, the large volumes of waste generated are a product of modern mineral economics, whereby low-grade ore bodies are developed into national resources through ore production rates of over 100,000 tons per day (TPD), with as much as 300,000 TPD of waste rock removal.

Facilities for mining and mine waste disposal are limited to specific sites since location is dictated by the presence of an economically viable ore deposit Unlike many other industrial wastes, mine waste must be disposed of at the site where it is generated. Because of their massive tonnages, mine wastes cannot be transported long distances nor can they be disposed of "at random" (i.e. "midnight dumping").

Other disposal technologies such as incineration and fixation are simply infeasible due to the nature and volume of the wastes involved.

(3) *Domestic metals prices are largely determined on the highly competitive international market (and not by domestic producers), causing an unfair burden on the domestic industry whenever government-mandated costs do not fall equally on imports.*—The continued ability of mines and mineral processors in the United States to produce metals, including strategic minerals, is dependent upon the industry's competitiveness with foreign producers and, in particular, the industry's ability to absorb additional costs not borne by foreign competitors. The market prices for metals are a function of the international metals markets and therefore are strongly influenced by the production costs of foreign producers. As a result, U.S. producers cannot pass mandated costs on to customers via price increases. This requires the costs to be internalized, resulting in a weakened competitive position.

(4) *Unless carefully constructed, any "front-end" or "waste-end" tax could have serious, unintended and inequitable effects on the domestic mining and mineral processing industry because of the unique economic circumstances of the minerals industry and the differences between its wastes and the wastes of many other industries.*—The current "front-end" tax on crude oil and specified chemicals has advantages in that, to some degree, it attempts to treat imports and domestic products evenhandedly and is easier to administer than a "waste-end" tax on thousands of generators whose wastes may vary significantly in terms of volume and toxicity.

It is nevertheless understandable that the Chemical Manufacturers Association (CMA) has taken the position that, for the types of wastes generated by that industry, a "waste-end" tax to raise revenues should be considered. For that industry such an approach might discourage the generation of hazardous chemical wastes and might encourage the recycliung of such wastes. Application of the waste-end tax to mine wastes, however, unless very carefully constructed to take imports into account, could predictably further undercut the competitive position of the domestic mining industry vis-a-vis foreign competitors without creating any real change in the generation or recyclability of mine wastes.

Any proposed change to "waste-end" taxes such as those currently before Congress therefore requires very extensive review since currently-proposed changes could lead to serious unintended and inequitable consequences. Current proposals fail to take into account the huge volumes and the low or non-toxic nature of mining and mineral processing wastes, as well as the competitive relationship between domestic and foreign producers.

(5) *The current EPA Hazard Ranking System is inappropriate for mining and mineral processing sites.*—Mining industry wastes do not pose the same potential human health or environmental problems that are associated with other industrial wastes. There are only 17 mining-related sites listed of the total 413 National Priorities List (NPL) sites—4% of the total. There are five additional mining-related sites among the 133 proposed for inclusion on the NPL.

Moreover, the appropriateness of the method for evaluating mining-related sites is open to serious question. The EPA commissioned a consultant (Mitre Corporation) to develop a system for ranking CERCLA sites relative to the priority for cleanup. The "Mitre Model' was designed to classify typical chemical waste dumps and is highly inappropriate for use in ranking mining and mineral processing sites.

The "Mitre Model" scores are based upon factors including, among others, quantity and toxicity of waste. For quantity, a maximum score in the "Mitre Model" is assigned when 10,000 drums or 2,500 tons of waste are present at a site. Ten thousand drums of chemical waste could take months or years to accumulate and could, depending on the contents and location, represent a potential environmental problem of major proportions, or could pose an extremely serious threat to health. Twenty-five hundred tons of relatively innocuous mining or mineral processing wastes, however, may be generated in only a few hours of operation at a typical facility and should not be considered equivalent to the "drum scenario" in any way.

In scoring the toxicity of a waste, the "Mitre Model" assigns a maximum score if heavy metals are present in any concentration. Most mine wastes will contain about 0.1 percent heavy metals, nearly always in an insoluble form, but because of this presence, the wastes receive the same maximum scoring as wastes containing extremely toxic materials such as dioxin. Furthermore, the model fails to take into account the fact that metals will be attenuated by the soil whereas many other types of wastes will not.

As a result of these factors, the "Mitre Model" is not suitable for assessing the potential risk to the public or the environment from abandoned mining and mineral processing sites.

(6) *Domestic minerals extraction and processing activities have occurred continually in the U.S. pre-dating the Revolutionary War. As a consequence, the chain of ownership for many sites is difficult if not impossible to establish, making it impossible to allocate fairly the responsibility for remedial action.*—Mining and mineral processing in America began long before the Revolutionary War with localized, small-scale operations generally aimed at meeting the immediate mineral needs of the local community.

The "modern" mining era in the U.S. dates from the 1840's as the industry strove to meet the industrial Revolution's demands for minerals. Operations during the first 60 years of this era were usually small mines with high-grade ore. As the high-grade deposits were depleted, the truly modern era of mining and processing large volumes of very low-grade ores evolved.

The significance of this point is made apparent by the fact that at least 10 of the mining-related sites listed on the National Priorities List are over 70 years old with complex backgrounds of lease-holds and ownerships over the operating and post-closure years.

The complexity of historical owner and operator relationships can significantly complicate the task of adjudging responsibility for releases and reasonable apportionment of liability.

(7) *Victim compensation provisions should not at this time be included in CERCLA legislation. Appropriate studies must be completed prior to any legislative action on this aspect of industrial wastes.*—Amendments to CERCLA should not at this time include victim compensation provisions. As noted in testimony over the past year by the CMA and others, there is not sufficient scientifically valid evidence of chronic illness resulting from exposure to industrial wastes to justify imposition of costly compensation programs. Further study is needed to provide adequate health effects information upon which a national policy can be based. However, since there is no crisis, time is available to conduct appropriate studies in an organized, systematic manner, and efforts are being made to meet this need in both government and industry.

APPENDIX B

STATEMENT OF DONALD J. BOWES, MANAGER-LEGISLATED COMPENSATION PROGRAMS, CONSOLIDATION COAL CO., ON BEHALF OF THE AMERICAN MINING CONGRESS BEFORE THE U.S. SENATE, COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS HEARING ON REAUTHORIZATION OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980, MAY 23, 1984

Good morning. My name is Donald J. Bowes. I am manager of Legislated Compensation Programs at Consolidation Coal Company. I am appearing today on behalf of the American Mining Congress (AMC).

AMC is an industry association that encompasses (1) producers of most of America's metals, coal, and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies, and (3) engineering and consulting firms and financial institutions that serve the mining industry. AMC appreciates the opportunity to share with the committee some of our industry's concerns regarding the reauthorization of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) and recently introduced reauthorization legislation.

The mining industry is prepared to work with Congress and the Administration to develop an effective means of addressing problems that have arisen out of past mining activity.

The nature, volume and toxicity of mining and mineral processing wastes differ significantly from wastes generated by other industries. These factors, as well as others, create special problems and consequences for addressing abandoned mine sites and mining wastes under CERCLA. These differences need to be taken into account in any legislation to amend CERCLA. To do otherwise could result in serious, inequitable impacts on a domestic minerals industry already faced with economic problems of major proportions.

At the outset, AMC wishes to note that there have been expressions of concern in the past that the mining industry has not paid its "fair share" of Superfund taxes. Some parties have even been under the mistaken impression that the mining industry has paid no taxes. The fact is that the mining industry has, since April 1, 1981, paid Superfund taxes. Our industry's contributions, by our own unofficial calculations, appear equivalent to the number of mining-related sites on the National Priorities List (NPL)—about four percent.

We want to assure the members of this committee that the mining industry can and does recognize the realities and the pressures that argue for CERCLA reauthorization. It would appear that many more sites will eventually be listed on the NPL, and that other sites will require emergency cleanup or removal actions. The pressures are compounded by an apparent inadequacy of the current CERCLA funding mechanism to supply monies needed for all sites now on the NPL as well as future site requirements.

However, some of the revenue-raising methods proposed are of great concern to the domestic minerals industry.

First, it is likely that any expanded list of taxable commodities and rates for a "front-end" tax will, if invoked, pose a further burden on an industry already beset with serious economic problems.

"Waste-end" tax provisions are of equal concern. The minerals industry produces enormous volumes of relatively innocuous waste due to the nature of mineral occurrence and processing.

In the debate leading to the passage of CERCLA in 1980, Congress emphasized the need for cleaning up the problems associated with chemical waste disposal. Congress did not conclude that conventional mining and mineral processing wastes posed an equivalent potential danger to public health. In fact, Congress recognized the need for special consideration for such wastes.

There are many significant differences between wastes from mining and mineral processing operations and those of other industries, including the volumes of wastes generated, thier stability and their degree of toxicity to life forms.

Mining and mineral processing generally utilize low grade ores, which result in the production of large volumes of waste rock, overburden, slag and tailings. Due to the presence of minor amounts of metals in the natural rock matrix, these wastes may sometimes be administratively classified as "hazardous" even though they exhibit little or no toxicity.

There are other industries that generate relatively small amounts of residuals that in themselves or by the presence of chemical contaminants are hazardous and may be extremely toxic in small amounts to human and other life forms. These are the residuals that were the focus of Superfund, not mining and mineral processing wastes.

It is essential that any amendments to CERCLA reflect the differences between mining wastes and other wastes that present a substantially greater risk of toxicity. Although mining and mineral processing wastes are part of the overall environmental issue of prudent waste management, they are not significant in terms of relative impact on public health.

The following points should be considered in CERCLA amendments if gross inequities are to be avoided:

(1) Mining and mineral processing generate high volumes of wastes that exhibit little or no toxicity.

(2) Mining and mineral processing waste disposal practices other than landfill and/or surface impoundments are infeasible, except for certain relatively small quantity wastes.

(3) Domestic prices are largely determined by the highly competitive international market (and not by domestic producers), causing an unfair burden on the domestic industry whenever government-mandated costs do not fall equally on imports.

(4) A "front-end" or "waste-end" tax could have serious, unintended and inequitable effects on the domestic mining and mineral process industry because of the unique economic circumstances of the minerals industry and the differences between its wastes and the wastes of many other industries.

(5) Because of the large volumes and low toxicity of mining and mineral processing waste and other factors, the current EPA Hazard Ranking System is inappropriate for mining and mineral processing sites.

(6) Minerals extraction and processing activities have occurred in the United States since before the Revolutionary War. Consequently, the chain of ownership for many sites is difficult if not impossible to establish.

An expanded list of taxable materials apparently would be based on the presumption that all sites on the NPL present hazards to human health. There is a further presumption that, if certain metals are found at NPL sites, they are inherently harmful and should be taxed. As stated earlier, these assumptions are not correct for mining wastes.

Some waste-end tax proposals clearly have not taken into account the possibility that some high volume, low toxicity wastes may be listed through future rulemaking as "hazardous wastes" under RCRA because of the presence of trace metals. In the lead industry, a ton of ore produces approximately 120 pounds of lead that would sell for about $30, while producing almost a ton of waste. That ton of waste under some proposals would generate a $10 tax. That would amount to a huge tax on an industry where profit margins, if any, are measured in pennies per pound and very low percentages.

Waste-end tax provisions ostensibly are intended to reduce waste generation and discourage land disposal. A tax on mining and mineral processing wastes would only increase costs without furthering these goals. Furthermore, waste-end tax provisions would place a burden on the domestic industry that would not apply to imports. H.R. 5640 recognizes the potential problems with a waste-end tax and prohibits such a tax on mining wastes unless Congress, after considering studies currently underway, decides to enact appropriate legislation specifically imposing such a tax.

Many joint and several liability proposals advanced thus far in Congress do not recognize the difficulties involved in allocating responsibility for activities occurring generations ago. We see no need to mandate the imposition of joint and several liability in all cases. Under current law, the government has an exceedingly successful record in imposing joint and several liability on responsible parties.

We recognize that joint and several liability can be a useful weapon in the government's arsenal, including potentially responsible parties to cooperate in serious settlement negotiations. Congress could clearly confirm that an equally successful weapon—apportionment of liability based on contribution to the problem—is also in the government's arsenal. Defendants, of course, bear the burden of proving the existence of a reasonable basis for apportionment. Such reasonable limitations on the extent of liability also are inducements for responsible parties to come forward, both to negotiate and to clean up sites.

The victim compensation provisions are, in our opinion, premature and should not, in any event, be included in CERCLA reauthorization. We believe there are two separate issues—the cleanup of problem waste disposal sites, and the compensation of persons affected by hazardous substances in the environment, whatever the source.

Finally, there are two studies that should be taken into consideration by Congress prior to including mineral products or wastes in any CERCLA reauthorization. The first is the President's report, mandated by CERCLA § 301, on whether to continue the exemption or increase the tax on copper, lead and zinc oxide.

The second report is that mandated under Section 8002 of the Solid Waste Disposal Act on mining and mineral processing wastes. AMC understands that EPA intends to submit that report to Congress by mid-1985.

Both reports will have direct bearing on the impact of CERCLA and the Solid Waste Disposal Act on our industry.

AMC appreciates the opportunity to appear before this committee and we will attempt to answer any questions you may have.

STATEMENT OF ASHLAND OIL, INC.

The House Ways and Means Committee conducted an open hearing on the subject of H.R. 5640 on July 25, and invited written comments from other interested parties on the same subject, to be filed on July 30. Pursuant to that invitation, Ashland Oil is submitting the following comments to urge a substantial realignment of the Superfund revenue burdens from those currently proposed in H.R. 5640. In doing so, we endorse the oral testimony offered at the July 25 hearing by the National Petroleum Refiners Association, and the American Petroleum Institute. Ashland is a member of both those organizations.

Ashland Oil, Inc. is a diversified corporation, with operations in petroleum refining and marketing, chemicals, coal, and some oil and gas exploration, along with other lines of business. Ashland is not only the nation's largest independent petroleum refiner and marketer, but also the largest distributor of industrial chemical products in the United States. Because of its chemical operations, Ashland has since April 1, 1981 paid its Superfund tax obligations on the production and use (as chemicals) of those taxable chemicals listed in the existing statute. For our refining and marketing operations, we have also paid those petroleum taxes required by the statute—set at .79 cents per barrel on crude oil and imported petroleum products.

Ashland does not object to the principles embodied in the concept of industry participation in the cost of repairing the environmental damage from hazardous waste disposal. However, Ashland feels that the levels of the revenues anticipated in H.R. 5640, and the basis for those revenues, will be extremely destructive to the independent refining and marketing segment of the petroleum industry. Indeed, inherent in the proposal is the potential for irreparable harm to an industry segment that is recognized to be vital to national security.

There is no need to reauthorize Superfund this year.—Ashland Oil, Inc. believes that Superfund reauthorization should be deferred until 1985, when the current law expires. There is no basis for rushing forward with this obviously controversial bill now, when the potential impacts are not fully appreciated.

In earlier testimony by the Environmental Protection Agency on this legislation (and that being developed in the Senate), EPA indicated it would complete by December 11, 1984, the comprehensive report mandated in Section 301(a) of CERCLA which will relate EPA's experience from implementation of CERCLA with future funding needs. With this detailed information thus promised to Congress more than nine months before legislation extending or enlarging Superfund collections is actually needed, this will surely be ample time to enact a carefully studied bill with a sounder basis than H.R. 5640. This proposed legislation anticipates a five fold increase in funding. To date EPA has shown no need for greater funding, nor any ability to spend the vastly increased amounts. Only those funds EPA can reasonably be expected to *spend* should be collected. EPA has promised a definitive recommendation on an appropriate amount in its December 11 study. In their testimony on July 25, they offered a preliminary figure of about $1.0 billion per year as the maximum amount they could spend wisely and well. This is about half of the amount that H.R. 5640 would be estimated to collect. Ashland feels Congress should wait until EPA is sure of what it needs, and when.

If Superfund must be reauthorized this year, it should be done at current levels of funding with the current revenue generation scheme.—If Congress concludes that completion of Superfund reauthorization is necessary this session, it should act to simply extend the current law. Ashland does not oppose reauthorization of CERCLA and Superfund, but we feel that H.R. 5640 as proposed, if enacted, may well be one of the final nails in the coffin of many independent refiners. We do not argue that Superfund should not eventually be expanded. Rather, we petition that any expansion should be done on the basis of experience and judgment, and be allocated as fairly as possible to the sources of the hazardous wastes which are to be reclaimed.

If Superfund is to be reauthorized at levels greater than the current levels, the equity features that now connect revenue generation to the portion of hazardous waste generation by the industry sector should be retained.—The taxes for cleanup of hazardous waste sites should be assessed as nearly as possible on those who generate these wastes. This was clearly the concept used to calculate the tax burdens and levels in the 1980 legislation, which assessed to the petroleum refining sector a 15% portion of the total Superfund anticipated to be collected. That 15% portion was based (albeit loosely, because it exceded petroleum's "rightful" share) on EPA's own report of hazardous waste generation by industry sector. More recent indications are that the petroleum refining and marketing segment generates only 3–4% of current anual waste. Thus, even the present law dictates that the petroleum industry pay 3–5 times its "share" of cleanup costs, based on its contribution to the problem. Certainly there is no justification for the burden on the refining segment to be made even greater by reauthorization legislation. Yet that is exactly what is contemplated in H.R. 5640. It would increase total funding fivefold yet increase oil refining's contribution by 16 times. Thus, petroleum's "contribution" to cleanup would be increased from the present 15% to about 50%, although it contributes only about 3% of the problem. Is that equity?

Although "the oil industry" is publicly perceived as a highly profitable, easily taxed target, the petroleum refining and marketing segment (which would be taxed under both the crude oil feedstock tax and the proposed new BTX tax) is at best only marginally profitable (or in many cases unprofitable) in the current environment. Many independent refiners, who do not own significant upstream crude oil and gas production, are losing money under the extremely competitive pressures in today's market. They cannot pass through even current tax burdens (such as the recently increased gasoline tax). Second quarter results for 1984 are just becoming generally available, and the dire predictions of an extremely poor quarter for refiners and marketers have become reality. Further, a recently issued Salomon Brothers, Inc. Analysis of Domestic Oils titled "The U.S. Oil Industry's Downstream Profits—Going . . . Going . . . Gone!" projects that "it seems increasingly likely to us that industry downstream earnings will fall sharply in the third quarter . . . unless the situation improves quickly, downstream earnings could fall by 70% or more in the third quarter relative to the same period last year."

For the vast majority of independent refiners, the current and anticipated weakness in the downstream market is already severely testing their survivability. An additional tax liability as contemplated under H.R. 5640, which bears no correlation to the generation of hazardous wastes left in abandoned sites, is inequitable and may be devastating to many. As stated earlier, the Superfund burden on the refining industry would be increased sixteenfold under the Florio bill (according to Florio's staff) while the total fund would "only" be increased fivefold annually. Independent refiners can ill afford a new tax which offers almost no opportunity of passthrough to the end-user in the current market condition.

The chemical industry has adopted a clear passthrough method, by adding a line-item Superfund tax value on the chemicals manufactured and sold to users of these chemicals. Petroleum marketing practices do not offer the same opportunities for line-item passthrough of increased taxes. But the argument is nebulous. The refining industry should not have to bear these tax increases. We repeat, the burdens should be equitably based upon those who have deposited the wastes to be cleaned up, and those products should carry the costs.

We would be remiss here in not offering even further discussion of the plight of the domestic refining industry. It is in serious financial difficulty, and in danger of sinking even further. In the three years between 1/1/81 and 1/1/84, the number of U.S. operating refineries has declined by 32% while the total capacity of all operating refineries has declined by 18% (i.e. the shut down refineries are smaller than average). Since the first of the year numerous other refiners have filed for bankruptcy, and others teeter on the verge. With the bleak outlook forecast for the remainder of 1984, there will undoubtedly be more failures even before the Superfund reauthorization and its associated tax increases on the industry.

Refiners face a double whammy—increase of taxes from within, and increased foreign competition from without. The depressed situation existing today, despite a healthy increase of about 4% in total demand so far this year, is caused largely by a flood of imported products, which are up about 25%. The obvious result is product prices so soft that refiners are unable to cover even the cost of their raw materials.

This situation promises to get worse. Despite an excess of refining capacity in Europe and North America, Middle East producing countries are cranking up new export refineries which will contribute further to this excess position. We need not conjecture on the pressure which can be provided by these crude rich exporting nations to assure that the output of their refineries receive a favorable position in the marketplace.

All of the foregoing is intended to portray that the domestic refining industry should no longer be perceived as an inexhaustable cash cow, which can be milked by the Congress at its whim. The Congress wisely chose to establish a Strategic Petroleum Reserve in the United States, to guard against possible shutoff of imports of crude *and* products. The comfort level of that SPR crude for an emergency presupposes that there will be adequate domestic refining capacity to process it into products. Ashland contends that if the present trend is allowed to continue unabated, the nation may face the embarrassing situation of offering up the SPR for bids in a crisis, and have no domestic refiners left in a financial condition which would allow them to bid on it.

The proposed tax on BTX "mixed into" gasoline or on any BTX in gasoline should be eliminated.—The tax conferees just last month agreed to clarify that Benzene, Toluene, and Xylene contained in gasoline were never originally intended to be taxed under CERCLA. The IRS discovered, when it announced its intention to collect such a tax under CERCLA, just how unmanageable such tax could be. The record of the IRS hearing should be replete with convincing testimony that BTX tax on refiners and refined products is virtually impossible to assess. It is uneven in impact, unmeasurable as to occurrence and unauditable by IRS. It fails under all traditional tests of a well-conceived tax scheme. The Congress would do well to study the submissions to the IRS on the subject.

First, one must understand that the "BTX mixed into gasoline" which the Florio bill proposes to be "taxable chemicals" are integral components of all the light ends products coming through the refining process. These same hydrocarbons are generally present, though at reduced levels, in the raw crude charged to refineries. The refining process merely alters the hydrogen and carbon configuration to produce high octane materials in the gasoline boiling range. Many of these materials are indeed BTX, but a refiner doesn't know or care just how much.

The fact that some hydrocarbons generated, or transformed, in the refining process could possibly be used as a "taxable chemical" is of no concern to refiners, thus they have virtually no interest in measuring the precise portion of these components in either the feed or in the many intermediate or final refining streams. The refiner's primary concern is that the final refined petroleum product meet physical specifications such as octane number, boilng range, vapor pressure, etc. as agreed to by A.S.T.M. and various regulatory agencies. The quantities of specific compounds which H.R. 5460 would now include as "taxable chemicals" simply are something that refiners have no "need to know".

Refiners would be forced to make significant investments to measure the amounts of "taxable chemicals" in the many refinery streams where they appear. How extensive these investments would be would depend upon the IRS requirements for creating a suitable audit trail. At the minimum, flow meters and automatic samplers would be required for each affected stream, with the samples analyzed in Gas Chromatograph Analyzers in a laboratory. At the worst (from the refiner's standpoint), each stream would be fitted with a combination flow meter and continuous gas chromatograph analyzer. Our best estimate is that there might be 20–60 streams in each refinery, depending upon the complexity of the operation, which might need to be so monitored.

Add to the above all the instrument technicians, laboratory personnel, and general accountants necessary for the installation, measurement, and record keeping activities associated with these facilities, and the cost to each refiner escalates rapidly. We estimate that the minimum annual cost to Ashland alone could be over $1.0 million. For the industry, it could be as much as $50 million annually. Worst case cost figures could be two to three times those amounts. An additional complication is the time requirement for putting all these new facilities in place. Delivery times for analyzers may be one year or longer.

The current version of the Florio bill would only tax BTX "mixed into" gasoline (whatever that means). Gasoline is itself a blend of various refining streams, which contain various percentages of BTX. Also, some refiners blend concentrated streams of B, T, and/or X purchased from others. The blending procedure would result in a very different total tax liability for refiners on a per barrel of gasoline basis, thus making passthrough of costs even more unlikely.

There is no way to make a BTX tax palatable. It is either uneven and unfair or, if broadened to cover all BTX in gasoline—i.e. "mixed into", naturally occurring, and chemically reacted—it is unauditable. Likewise, gasoline is not a waste product encountered in a disposal site. Ashland fails to see why gasoline, or a component of gasoline, should be singled out as a vehicle for collecting revenues to clean up such sites.

Any tax imposed under Superfund applying to crude oil or petroleum products should be carefully crafted to eliminate any advantage to imported petroleum.—The proposed crude oil tax would be imposed equally upon imported gasoline. However, a typical refiner makes only about 50% gasoline from crude. Thus, the "equivalent cost" for gasoline would be twice as high for a domestic refiner as for imported gasoline, thus favoring imports. Likewise, if a tax on BTX mixed into gasoline were made part of Superfund, imported finished gasoline and gasoline blending stocks, etc. would not be subject to any additional tax for its BTX components.

Equity would demand the same application of tax on the same components mixed into gasoline, if it is imported. Unfortunately, when these products are landed at a U.S. port of entry the BTX "mixed into" gasoline is not measured. Any new taxes on petroleum should eliminate any competitive advantage indirectly given to imported products. We have already discussed the ruinous conditions such imports are creating for domestic refiners.

Provisions for clean-up of Leaking Underground Storage Tanks (LUST) should be removed from Superfund reauthorization.—The clean-up of leaking underground storage tanks is badly misplaced in Superfund reauthorization. Gasoline is not a hazardous waste, and underground storage of that product bears no relationship to the chemical dump sites which CERCLA sought to clean up. There may indeed be a need for some sort of legislation to deal with abandoned "orphan" underground tanks, but H.R. 5640 is definitely not the vehicle. Even as separate legislation, the clean-up cost burden should not be heaped upon refiners, many of whom have never owned an underground storage tank.

Our position on LUST legislation is consistent with our main argument concerning Superfund. The cost should be levied as nearly as possible upon those responsible for the leaks. Ashland feels that there will be very few instances where gasoline leaks cannot be traced to those directly responsible, i.e. the tank owners. In those few instances where tanks are truly "orphans", and their previous owners not traceable, a modest clean-up fund could be established, to be maintained by present owners of underground tanks. A charge to refiners only is grossly unfair, as many own no such tanks, while others may market all their product through company-owned tanks.

Likewise, all underground storage tanks do not contain gasoline. There is no reason then why gasoline alone should bear all the costs of clean-up. Also, if the intent of a tax is somehow to discourage future leaks, it is imperative the cost be placed as near the source as possible to be effective. This is best done by a tax or license fee on owners of underground tanks, not on refiners.

SUMMARY

Briefly then, Ashland urges that any reference to leaking underground storage sites be removed from any Superfund bill, and addressed separately. Superfund reauthorization itself should reflect a studies approach to placing the burden of revenue on those most closely associated with the waste disposal sites which require clean-up. Funds for clean-up should be collected at a rate commensurate with EPA's ability to oversee that the work is done properly.

The burden for funding clean-up should definitely not be placed disproportionately, without any basis in fact, upon a petroleum refining industry already in weakened financial condition. Ashland, for instance, earned only about 20¢/bbl (less than ½¢ per gallon) before tax from all its petroleum refining, marketing, and transportation operations in the first nine months of this fiscal year (through June). The increased crude oil tax contemplated by H.R. 5640 would have appropriated an additional 3.7¢/bbl of that amount, or 18.5% of our petroleum earnings, had it been in place in that period. The proposed tax on BTX would have taken upwards to another 6¢/bbl, depending upon the interpretation of the "mixed into". Thus, H.R. 5640 would have essentially wiped out half the small profit Ashland earned from its petroleum operations during the last nine months. A tax placed so unfairly with such a devastating effect on refiners such as Ashland is unconscionable. We urge that the Congress restructure its proposal to make it more broadly based, and to be more closely linked with those who caused the clean-up problem.

AUTOMOTIVE SERVICE INDUSTRY ASSOCIATION,
Chicago, IL, July 24, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Members of the Ways and Means Committee,
Washington, DC.

GENTLEMEN: The Automotive Service Industry Association (ASIA) is the automotive world's largest and most comprehensive organization. Its membership encompasses more than 8,500 independent automotive wholesalers, warehouse distributors, heavy-duty parts and equipment distributors, automotive electric service distributors, manufacturers' representatives, manufacturers and remanufacturers of automotive replacement parts, tools, equipment, chemicals, paint, refinishing materials, supplies and accessories.

Enclosed is a paper addressing the overall concerns about waste end tax proposals. We hope that you will take time to peruse it.

ASIA is concerned with the waste end tax provisions included in H.R. 5640. We realize that waste end taxes have a certain emotional appeal but we feel that their appeal is only that. ASIA's main concern is the competitive disadvantages waste end taxes will have upon our members with their foreign competitors who do not pay such a tax on their products. This puts our members at a further disadvantage in a market already tilted in favor of foreign competitors.

As a revenue raiser, waste end taxes have failed at the state level, according to the GAO study. As a punitive measure they are unnecessary because RCRA and other provisions in Superfund already provide business with cleanup incentives. EPA has said it cannot readily use more monies at this time. These monies could be used more advantageously by industry for further research into recycling and minimization of its wastes.

ASIA supports a strong, viable superfund law but wants to see it workable and equitable.

We respectfully request this letter and attachment be made a part of your hearing record on H.R. 5640.

Sincerely,

RICHARD F. TURNEY,
Washington Representative.

Enclosure.

CONCERNS REGARDING PROPOSALS FOR WASTE-END TAX FINANCING OF SUPERFUND SITE CLEANUPS

The following list represents some of the concerns which have been expressed with respect to proposals to amend CERCLA (the so-called "Superfund" Act) to provide for financing of the Fund by a tax on "hazardous" wastes. The list of concerns should not be regarded as exhaustive. Nor are the concerns itemized in any particular order of importance or priority. They simply represent some of the reasons why a front end tax approach may be regarded as a less undesirable means of raising tax revenues for the purposes of CERCLA.

1. A waste end tax would tend to harm the competitive position of domestic industry vis-a-vis foreign competitors. This is so, because the waste end tax would apply only to domestic companies, whereas a tax on feedstocks, products, or materials could (and presently does) apply equally to importers as well as domestic producers.

2. A waste end tax would tend to be inequitable if applied to waste streams involving relatively high volumes of low toxicity wastes. This would particularly be a problem with respect to wastes deemed "hazardous" in their entirety even though only a small fraction of the waste stream involved constituents deemed to be "hazardous".

3. The waste end tax would tend not to provide a reliable, assured source of funding to pay for any necessary clean-ups of Superfund sites. This may be the case for many reasons:

(i) the potential for regulatory conflict, litigation and delay in the hazard assessment and classification of various wastes;

(ii) definitional and legal uncertainties regarding when a substance is or becomes a "waste";

(iii) administrative difficulties in collection of the tax if it were imposed on waste generators, rather than the far smaller group of basic producers of "taxable chemicals";

(iv) even greater administrative difficulties in collection of the tax if it were imposed on the ultimate disposers of hazardous wastes;

(v) problems in measuring the amount of waste subject to the tax; and

(vi) enforcement problems associated with the waste end tax approach.

The historical record of several state waste taxes, appears to demonstrate that such waste end taxes have fallen far short in practice of generating the anticipated revenues projected in advance.

4. One of the theoretical benefits of a waste end tax is the creation of an incentive to reduce the generation of hazardous wastes, to recycle or reclaim previously discarded wastes, or to reduce the toxicity of the waste prior to disposal. Yet such "incentives will not and cannot be effective for those industries and waste streams for which no technology to accomplish these purposes exists or is even on the horizon. An example is overburden waste inevitably generated as part of the basic hard rock minerals mining process.

5. In addition, RCRA already creates a comprehensive system of regulations and incentives to reduce the generation of hazardous wastes in the future, for those industries and waste streams which can respond to these incentives. A CERCLA waste end tax would tend to be redundant, if imposed for this purpose.

6. There is a possibility that waste end taxes would be added to, instead of a replacement for, the present so-called "front-end" feedstock, product, or materials tax. This would substantially increase the economic burden of the tax.

7. Waste end tax approaches could create incentives for "midnight dumping" and other unauthorized disposal of hazardous wastes. This could not only inadvertantly bring about more lawlessness, but a greater threat to health and environment.

8. The economic impact of the waste end tax on industries other than the chemical manufacturing industry (and on labor and consumers of the products of those other industries) has not been adequately assessed and quantified yet. In the case of the electric utility industry for example, the tax could result in the necessity to switch fuels in order to minimize costs of generating electricity.

9. Which wastes would be taxed under a waste end tax approach and at what rates are not yet clear, and the list could be quite broad. Potentially, they could include waste water treatment effluent.

10. The bureaucratic costs, complexity, and inefficiency entailed in implementing a waste end tax could be quite great by comparison to the "front end" tax approach, in which a relatively small number of major producers of taxable chemicals in effect become tax collectors for the Fund.

11. The current tax system under CERCLA has been a reasonably reliable, efficient, and generally equitable system for raising revenues. Proponents of the waste end tax have yet to demonstrate persuasively that the current system poorly serves the purposes of the Act.

STATEMENT OF THE CELANESE CORP.

The Celanese Corporation is pleased to take this opportunity to comment on H.R. 5640 the "Superfund Expansion and Protection Act of 1984." We want to state at the outset that the Celanese Corporation recognizes the importance of reauthorizing the Superfund program. We support this Committee's efforts to provide appropriate funding mechanisms to carry out the basic goals of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Although there are numerous areas of this bill in which Celanese has an interest, we will limit our comments in this statement to a few specific tax proposals.

LEVEL OF FUNDING

The Superfund program was established in 1980 to provide a comprehensive system of notification, emergency response, enforcement and liability for hazardous substance spills and uncontrolled waste sites. The Environmental Protection Agency has indicated it will require a minimum of $8 billion to carry out its obligations under current law for toxic waste site cleanups. Assuming a 12.5% federal contribution to the fund, the tax portions of this legislation would need to raise approximately $1.3 billion per year to meet this level. The Congressional Budget Office has estimated that H.R. 5640 as reported by the Energy and Commerce Committee would raise approximately $1.3 billion in fiscal year 1986, $1.6 billion in fiscal year 1987, and $1.9 billion annually in fiscal years 1988 and 1989, and $2.0 billion in 1990. The bill also authorizes appropriations from general revenues of $181 million annually in fiscal years 1986 and 1987 and $256 million annually in fiscal years 1988, 1989, and 1990.

Celanese recognizes the need for, and supports extension of, the current Superfund program consistent with the following principles. First, we believe that priority must be given to the waste site clean-up efforts authorized under current law. Overall funding should be tied to a realistic assessment of EPA's ability to effectively administer this program. Second, we support the adoption of additional revenue sources designed to supplement the current feedstock tax and assist in spreading the tax burden more equitably among generators of hazardous materials. While H.R. 5640 takes an important step in this direction, we strongly support a further broadening of the basic tax burden.

Waste-End Tax.—As originally introduced, H.R. 5640 proposed a tax on the disposal of hazardous substances regulated by subtitle C of the Solid Waste Disposal Act. The rate of tax would depend on two factors:

The method of disposal (whether by underground injection or other means); and

The degree of hazard of the waste material (as determined on the basis of "reportable quantities" (RQs) established by EPA pursuant to § 102 of CERCLA).

The bill proposed to tax waste for which RQs of one pound or less had been established by EPA at $15.00 per metric ton disposed of by undergound injection and $30.00 per metric ton disposed of by other means. For substances with RQs of more than one pound, the tax would be $5.00 per metric ton on waste disposed of by underground injection and $10.00 per metric ton disposed of by other means. In reporting H.R. 5640, the Energy and Commerce Committee agreed to recommend an amendment establishing a uniform waste-end tax of $5.00 per metric ton of waste disposed of by underground injection. This was done in recognition of the substantial amounts of water typically associated with waste disposed of by underground injection and was intended to avoid artificial disincentives for the use of this disposal method.

In general, Celanese supports the concept of a waste-end tax on hazardous substances. Such a tax effectively meets two very important objectives of the Superfund legislation. First, a waste-end tax serves as an incentive to reduce the amount of hazardous waste generated and disposed of. This incentive will promote increased utilization of new and more efficient technologies to recyle, reuse, neutralize, treat, incinerate or otherwise destroy hazardous wastes.

Second, a waste-end tax focuses the tax burden more directly on the generators of hazardous wastes than the feedstock tax. A waste-end tax would distribute the tax burden to those companies who actually generate the waste. As a result of this direct relationship between waste generators and the tax burden, the cost of the Superfund program would be spread more equitably among industries which contribute to the waste cleanup problem.

Celanese does, however, have two specific concerns with respect to the effect of such a tax as proposed by H.R. 5640 on deep well injection of hazardous waste. These wells, which are regulated by EPA under the Safe Drinking Water Act, are drilled into confined rock formations up to several thousand feet below acquifers used as a source of drinking water.

First, application of a waste-end tax on a "wet" weight basis (i.e., including the weight of any associated water) as proposed by H.R. 5640, would place an unreasonably high tax burden on Class I underground injection wells relative to other methods of disposal. The waste stream for inection wells is typically highly diluted (an average of 95 percent water). This compares to an average water content of 50 percent for land treatment, 90 percent for landfills and 10 percent for surface impoundments.

Under H.R. 5640, deep wells, which account for approximately 20 percent of disposals of a "dry" tonnage basis (i.e., excluding water) would be liable for 27 percent of the total waste-end tax. The resulting incentives for other methods of land disposal would run counter to recent congressional and agency policy to minimize surface disposal of liquid hazardous wastes.

In principle, we believe that the tax liability for the same quantity of hazardous waste should be uniform, regardless of the disposal method used. For this reason, Celanese favors a waste-end tax based on the dry weight of the substances disposed of, i.e., the total volume less free water. Such a tax would be most reflective of the actual environmental effects of waste disposal and eliminate the financial disincentive for disposal by deep well injection. We recognize that to raise the same amount of revenue, a dry weight tax would require a higher rate of tax per metric ton. The Chemical Manufacturers Association (CMA) has proposed a dry weight tax. We believe the distribution of the tax burden under a dry weight tax would be fully consistent with the underlying revenue and environmental policy objectives of a waste-end tax.

Should the Committee elect to retain the wet weight concept, however, we urge that the rate of tax be adjusted to account for the differences in water content associated with underground versus surface disposal methods. The recommendation of the House Energy and Commerce Committee to adopt a uniform $5.00 per ton tax for deep wells recognizes this problem. While we strongly support the Committee's recommendation, we urge the Congress to consider a further reduction to a rate more closely approximating the relative concentration of hazardous substances in underground versus surface disposal method.

Our second concern involves the differentiation of tax rates based on the degree of hazard of the waste materials. As introduced in the House, H.R. 5640 included provisions applying a higher tax rate on substances with RQs of a pound or less. The concept of "reportable quantity" is based on the notification requirements of section 102(a) of CERCLA. The bill also provided that any mixture of high and low hazard wastes would be taxed at the higher rate.

Because underground wells require continuous injection of highly dilute fluids, a strict interpretation of such a mixture rule could impose a disproportionate burden on such wells. For example, EPA has proposed a reportable quantity of 1 pound for chrome. In our Bishop, Texas chemical facility which does not use or produce chrome, monitoring has shown chrome to be present in waste water at levels ranging from 50 to 250 parts per billion. The source of this chrome is believed to be from the corrosion of stainless steel process equipment, which would release small amounts of chrome and nickel. Application of the higher rate of tax to the entire waste stream containing such small concentrations of substances with RQs of a pound or less could dramatically distort the revenue effects of the proposed legislation.

The Energy and Commerce Committee report recognized this potential problem. Its recommenaton to tax deep will injection at a uniform rate of $5.00 per metric ton would avoid these difficulties. However, should the Ways and Means Committee elect to retain a differential tax rate based on degree of hazard, we recommend the adoption of a de minimus rule in the case of deep well injection for relatively low concentrations of high hazard materials.

Import Tax.—The Energy and Commerce Committee also recommended adoption of a tax on imports directly and immediately derived from chemical substances subject to the feedstock tax. The tax would be assessed at the rate of five percent of the landed value of the substances or the equivalent of the feedstock tax on the substance which would applied had it been produced in the United States.

The purpose of the import tax is to correct the price advantage imported chemical derivatives (which are now untaxed) have over domestic products. This advantage will increase with the substantial increases in the feedstock tax proposed by H.R. 5640. Celanese favors the imposition of an import tax to correct these imbalances. We also recommend that it be broadened to apply beyond "immediately derived" substances to cover second and third tier derivatives as well. To assure compliance with U.S. international trade obligations, it should also retain the alternative feedstock rate of tax.

Finally, we urge the Committee to consider a credit against Superfund taxes for exports similar to that recommended by the Energy and Commerce Committee. This credit should, however, apply to as broad a category of exported derivities as is administratively practicable.

Feedstock Tax.—The Energy and Commerce Committee proposal retains the feedstock tax as a mechanism for funding the Superfund. We support the expansion of the list of substances subject to the feedstock tax to reflect more accurately the substances and their derivitives which appear in toxic waste sites. Such an expansion of taxable substances further promotes the twin goals of a broader distribution of tax liabilities among generators of hazardous waste and a more direct relationship between tax revenues and waste disposal activities.

CONCLUSION

In sum, Celanese supports the continuation and reauthorization of the Superfund program. We urge a reasoned approach to maintain and improve the government's commitment to clean-up hazardous waste disposal and toxic waste sites. We appreciate this opportunity to present our views on this legislation.

STATEMENT OF THE DIAMOND SHAMROCK CORP.

Diamond Shamrock Corporation is a diversified energy company with a substantial chemical business. Although we are an integrated oil and gas producer, refiner and marketer, operating both domestically and internationally, and also a producer of geothermal energy and coal, our chemical business still accounts for nearly 25 percent of our sales. Therefore, it is obvious that we are significantly interested in and affected by H.R. 5640.

Funding level in H.R. 5640 is unreasonable.—We support reauthorization of Superfund at a reasonable level, but oppose H.R. 5640 as reported from the House Committee on Energy and Commerce. First and foremost, the proposed funding level is too high. As demonstrated by the Environmental Protection Agency at the July 25 Committee on Ways and Means hearing, the $9 billion program contemplated by H.R. 5640 bears little relationship to the cost of the program outlined, the revenues expected to be raised, or EPA's ability to administer an effective clean-up program. The figure also seems to have been set without regard for the impact on the industries which are targeted as the source of revenue.

Feedstock fees continue inequitable treatment of the petroleum and chemical industries.—Despite the fact that nine industries produce the bulk of the hazardous waste, only two currently finance cleanups. Corporate names which consistently appear as waste contributors to sites listed on the National Contingency Plan do not contribute one cent toward clean-up under present law. By trebling the feedstock fee, Congress will only be trebling the inequity of this situation. The fact that feedstock fees are easy to collect is not, in our opinion, a rational or ethical reason to continue taxing on this basis. In addition, the fee schedule in H.R. 5640 does not adequately relate the amount of tax to the degree of toxicity or to toxic waste presence at disposal sites. EPA input is essential to derive a rational basis between the tax on an individual chemical and the costs associated with wastes at a particular site.

Current markets will not permit pass through of huge tax increases.—Particularly in the petroleum industry, past implementation of CERCLA has demonstrated that the tax may not be passed on to purchasers immediately. (Although, ultimately, the tax will be passed on to consumers). Intense market pressures have resulted in thin to nonexistent refining profit margins, with a corresponding shutdown of less efficient refineries. DOE estimates that 82 refineries were shut down between January 1, 1981 and January 1, 1983. If the tax burden is increased further, additional refinery shutdowns can be expected, particularly among independent refiners.

On the chemical side, it will also not be possible to pass through all of the increased amounts in H.R. 5640. At Diamond Shamrock, we would face unacceptably large increases on several of our high volume products. For example, the tax on chlorine would increase 110 percent, ethylene 264 percent, and sodium dichromate 699 percent. Sixteen percent of our production of chromium chemicals is exported, and the world market will not allow us to recover any of the tax increase.

Higher taxes will ultimately affect trade balance.—While we heartily endorse the concept of an import landing fee, it will not completely solve the import-export problem created by higher environmental taxes. For one thing, the sponsors of H.R. 5640 ignore the combined effect of these taxes on consumer products. For example, production of polyvinyl chloride (PVC) will be subject to the taxes on both chlorine and ethylene, as well as accumulated waste end taxes.

In addition, U.S. exporters of PVC will be trying to sell their product in countries where producers face no such taxation. The law ought to allow tax credits for exports similar to value added tax relief.

The waste end fee in H.R. 5640 has structural problems.—While we are completely supportive of a waste end fee, there are two severe problems with the one outlined in the bill. First, although we assume it refers only to RCRA-defined wastes, Title V is sufficiently ambiguous that we think it should be clarified. Varying interpretations could result in tax collections far beyond the levels discussed by EPA, Treasury or even the bill sponsors.

Second, we believe the tax should be levied on the dry weight of the waste disposed. We feel H.R. 5640 actually undermines sound treatment practices by basing the tax on wet weight. The addition of treatment chemicals and liquids is obviously designed to mitigate the hazard, yet the wet weight tax basis will penalize companies that do treat their wastes. A waste containing one part per million of a hazardous substance would be taxed at the same rate as a waste containing one percent (one part per hundred), a ten-thousand-fold difference.

The tax on instream chemicals in gasoline should be dropped.—The proposed tax on benzene, toluene and xylene (BTX) in the gasoline stream bears no relationship to hazardous waste cause and effect, and is nothing more than a blatant effort to increase tax revenues. As petroleum refiners repeatedly testified before IRS, standardized procedures do not currently exist to measure these components in the gasoline stream. While refiners would find it extremely difficult and costly to measure, IRS would find it equally difficult and costly to audit.

Even if the tax were physically feasible to administer, it would still be inequitable in its application throughout the refining industry. Differences in refinery processes and desired product slates result in varying combinations of interim aromatic streams. Generally, more sophisticated refiners produce more of these aromatics, and would therefore be more severely penalized for their investment.

The BTX tax would have the further perverse effect of penalizing refiners who have made significant investments to comply with EPA's lead phasedown schedule. Refiners who have upgraded their facilities to produce greater volumes of unleaded gasoline generally accomplish this with additional benzene, toluene and zylene capacity, which is blended into the gasoline stream to bring octane to required levels.

In addition, it would disadvantage domestic gasoline manufacturers because importers would be exempt from the BTX tax. This economic advantage for importers would occur at a time of substantial foreign competition. Since 1981, foreign gasoline imports have increased over 50 percent, resulting in further underutilization of domestic refineries.

We believe the tax-writing committees are already aware of these problems, as evidenced by language in the Tax Reform Act of 1984, which precludes IRS taxation of BTX. It would verge on absurdity for Congress to reverse itself on such a recent decision.

Leaking underground storage tanks do not belong in this bill.—We are all becoming acutely aware of the problem of leaking tanks, but we do not currently have any hard data on how large the problem is. EPA has given the committee an estimate of what it will cost to clean up the leaking tanks, yet their survey to determine the extent of the problems has not yet been conducted. The vast majority of tanks contain petroleum or chemical products, not waste, so they are inappropriately included under Superfund. Inclusion of underground tanks in this bill would serve to divert funds from the original intent of the law: cleanup of abandoned, hazardous waste sites. We endorse the concept of a regulatory program for tanks, but it should be dealt with under the Resource Conservation and Recovery Act, or as a separate issue.

H.R. 5640 is unrealistically ambitious in what it seeks to achieve.—While the first four years of Superfund may have caused some disappointment regarding the number of sites cleaned up, we do not believe it is because of structural problems in the law. The sponsors of H.R. 5640 fail to recognize the substantial progress made over the past year and seem to feel a need to place additional requirements on EPA and the program. One example of this is the clean-up standards mandated by the bill. By requiring that sites be cleaned up to background levels, we are needlessly committing extra money to a smaller number of sites, rather than trying to address as many sites as economically feasible. It's the typical utopian approach of unlimited desires—as long as someone else is paying the bill. Unfortunately, the U.S. consumer will ultimately pay for this overkill.

While we recognize that the Committee on Ways & Means cannot address all of the substantive issues in H.R. 5640, we ask that you carefully consider the need for cost effectiveness of the programs before authorizing the money requested.

Finally, we would urge that whatever size fund is finally approved—and we do not believe $9 billion is appropriate—please consider alternative methods of financing it. The existing petroleum and chemicals companies are not solely responsible for the problems. As we've pointed out, other currently-operating industries are significant contributors, and other now-defunct companies within our own industry have also played a large role. Consumers at large have benefited over the years by paying lower prices than would otherwise have been available. Thus it would not be inappropriate for general revenues to be used to cover the cost of cleanup of wastes not attributable to currently operating petroleum and chemical companies.

We will be glad to provide the Committee with additional information upon request.

EL PASO PRODUCTS CO.,
Odessa, TX, July 16, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Committee on Ways and Means, Longworth House Office Building, Washington, DC.

DEAR CHAIRMAN: This is to advise that El Paso Products Company is opposed to H.R. 5640, "Superfund Expansion and Protection Act of 1984," as now written and we urgently solicit your support in preventing passsage of this or similar legislation which would unfairly increase the tax on basic chemical feedstocks. We have great concern over the economic impact such a tax increase on basic chemical feedstocks will have. The inability of the small producer to absorb such a tax will certainly cause many to close down operations with resulting job loss in this severely depressed industry.

El Paso Products Company is a small, privately owned chemcial and plastics firm. We are no longer owned by The El Paso Company. Twelve of us got together and we were able to accomplish a highly leveraged buy-out of the business from El Paso and so far have been able to continue the operation and save over 1200 jobs. Our operation exists on a very thin margin and we cannot absorb this tax.

This company supports environmental laws which are prudent and penalizes those who generate hazardous waste chemcials which are haphazardly disposed of and pollute our environment; however, we believe this tax is unfair, in that it penalizes *all* for the acts of a few. The proposal for a 500 percent increase on butadiene and a 360 percent increase on ethylene is unrealistic relative to their possible environmental impact.

In addition to excessively taxing the wrong people, the bill further disadvantages domestic industry against its foreign competition which is not taxed. Your opposition to H.R. 5640 will be appreciated.

Sincerely,

O.R. CLEMENTS, *President.*

THE FERTILIZER INSTITUTE,
Washington, DC, July 26, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Committee on Ways and Means,
Washington, DC.

DEAR MR. CHAIRMAN: I am writing on behalf of The Fertilizer Institute (TFI) and its member companies to urge that the Ways and Means Committee add phosphoric acid, a newly taxed chemical, to the list of chemicals currently exempt from Superfund taxation when they are used in or as fertilizer. I request that this letter be included in the record of the Ways and Means Committee's July 25, 1984 hearing on Superfund reauthorization (H.R. 5640).

TFI is a non-profit trade association of the fertilizer industry. The membership of TFI, which includes over 300 companies, manufactures more than 95 percent of the domestically produced fertilizers. TFI strongly supports the objectives of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and commends the members of the Committee on Energy and Commerce and its Subcommittee on Commerce. Transportation and Tourism for thier efforts in developing H.R. 5640 as a vehicle for the reauthorization of CERCLA.

TFI is pleased that H.R. 5640 recognizes the importance of the current "fertilizer exemption" for ammonia, sulfuric acid, nitric acid and methane when these chemicals are used as fertilizer or in the manufacture of fertilizer. One addition is needed, however: phosphoric acid should be added to the list of these four chemicals now subject to the fertilizer exemption.

The addition of phosphoric acid to the fertilizer exemption is fully consistent with current law. Phosphoric acid, a major fertilizer chemical and feedstock, has not previously been subject to Superfund taxes. H.R. 5640 would add phosphoric acid to the list of chemicals subject to Superfund taxation. It therefore is necessary also to add phosphoric acid to the list of chemicals exempt from Superfund taxation when used for agricultural purposes.

The fertilizer exemption is essentially a farmer exemption, because it applies only to chemicals ultimately used on the farm; the very same chemicals, when diverted out of the fertilizer industry, are subject to Superfund tax. In fact, the fertilizer chemicals diverted to non-fertilizer uses under H.R. 5640 will contribute approximately $37 million per year in Superfund taxes.

Approximately 90 percent of phosphoric acid is used in or as fertilizers. To tax phosphoric acid used in fertilizer production would result in a tax on farmers of approximately $2.5 million per year—an increased cost that farmers are in no position to absorb and will be unable to pass on. To impose such a tax on farmers also would be unfair: Congress recognized in 1980 that fertilizer chemicals, because of thier use, do not contribute significantly to the spills and hazardous waste sites that are the principal focus of CERCLA. Experience since 1980 has only confirmed this judgment by Congress.

The addition of phosphoric acid to the list of exempt chemicals is non-controversial. Congressman Florio, the principal author of H.R. 5640, supports the exemption for phosphoric acid. The House Energy and Commerce Committee recommended during their consideration of the bill that phosphoric acid be added to the agricultural exemption.

On behalf of the U.S. farmer, TFI urges the Ways and Means Committee to add phosphoric acid to the fertilizer exemption for Superfund taxes. The exemption of phosphoric acid from Superfund taxation, when it is used in or as fertilizer, is consistent with the intent of Superfund and H.R. 5640.

Sincerely,

GARY D. MYERS, *President.*

HOPKINS & SUTTER,
Washington, DC, August 1, 1984.

Hon. DAN ROSTENKOWSKI,
House of Representatives, Rayburn House Office Building,
Washington, DC.

DEAR CONGRESSMAN ROSTENKOWSKI: The enclosed memorandum is submitted on behalf of Inland Steel Company. It explains why a waste end tax on deep well injections is improper, particularly if based on "wet weight."

In using deep well injections, Inland disposes of waste "pickle liquor" in absolutely the most pollution-free way possible. There is no discharge whatever into the environment. 96% of the liquid is water. Penalizing that process by imposing a tax on the water is both wrong and counterproductive.

After you have reviewed the enclosed, if you have any questions please feel free to call me.

Sincerely,

FRANCIS O. MCDERMOTT,
Counsel, Inland Steel Co.

Enclosure.

ARGUMENTS FOR REJECTING OR REDUCING SUPERFUND TAX ON DEEP WELL INJECTION

Deep well injection is an environmentally sound method that should be encouraged in preference to landfills and other surface disposal methods. Unlike surface disposal, deep well injection involves no discharge into the environment.

It should, therefore, not be taxed at all, or, if taxed, should be taxed at a rate substantially lower than the rate for surface disposal. If other hazardous waste which contains little or no water reflects a pollution risk to be taxed at $30, the pollution risk created by the non-water portion of deep well injected waste should be taxed at no more than $5.

Deep well injection works only with liquids and is usually 90–99 percent water.

For deep well injection, there really is no problem of measuring dry weight. Because the waste is primarily water it is technically easy to determine the "dry" i.e., non-water, weight by measuring the specific gravity. Further, deep well injection involves major capital investment and is accordingly worthwhile only for users that have waste streams which are large, uniform and easily measured.

If it is deemed politically important to tax deep well injection on a wet weight basis, it would be reasonable (and conservative) to convert the rate appropriately reflecting the pollution potential of the dry weight ($5 in the above example) to an equivalent wet weight basis by assuming that 90 percent of the waste is water and therefore to make the tax rate 10 percent of the $5, or 50 cents a wet weight ton.

NATIONAL ASSOCIATION OF PRINTING INK MANUFACTURERS, INC.,
Harrison, NY, July 25, 1984.

Mr. JOHN SALMON,
Chief Counsel, House of Representatives, Committee on Ways and Means, Longworth House Office Building, Washington, DC.

DEAN MR. SALMON: Thank you for allowing the National Association of Printing Ink Manufacturers an opportunity to participate in the Committee hearings on H.R. 5640 by submitting written testimony on the potential economic impact of the proposed legislation on the printing ink industry in the U.S. We believe the proposed legislation could have a very significant adverse economic impact on the printing ink industry which should be considered by the Committee.

INDUSTRY CHARACTERISTICS

The National Association of Printing Ink Manufacturers (NAPIM) is a national trade association representing small, medium and large printing ink manufacturers in the United States. Its members account for about 90% of the total $1.5 billion merchant sales of printing ink in the U.S.

The industry is composed of 228 ink companies of which at least 190 are believed to be smaller than $10 million in sales and are thus small entities. Data from the U.S. Census of Manufactures indicate that out of a total 463 ink manufacturing establishments in the U.S. in 1982, 313 employed less than 20 employees. Obviously, the industry is composed primarily of small entities.

DEPENDENCE ON PETROCHEMICALS

More than 80% of all printing ink raw materials are either petrochemicals or directly derived from petrochemical intermediates. Indeed, of the approximately 58 chemicals being considered for feedstock tax increases, at least 20 are of concern to the printing ink industry. For this reason the three-fold to five-fold increases in petroleum feedstock taxes proposed in H.R. 5640 will have a significant impact on the printing ink industry.

As will be shown later in this statement, the printing ink industry is a low profit industry under intense pressure from rising petroleum and petrochemical prices. Every government regulation, no matter how justified, which places an additional inequitable tax burden on the petrochemical industry creates an additional disincentive. Such disincentives weaken the strength of the petrochemicals industry versus foreign competition and have adverse consequences for the U.S. industries which depend upon petrochemicals for raw materials. Thus the printing ink industry is vitally dependent on a strong and viable petrochemicals industry.

ECONOMIC IMPACT

Besides weakening the petrochemicals industry which supplies the printing ink industry, NAPIM believes that the added tax burden proposed under H.R. 5640 will have serious economic consequences on the printing ink industry itself.

Based on an in-depth study of printing ink financial and operating ratios conducted by NAPIM for the year 1983, raw materials represent 55.3% of the industry's sales dollar. NAPIM believes that the effect of the higher feedstock taxes proposed by H.R. 5640, when passed down through the petrochemical supply chain, could result in increases in the printing ink industry's total raw material costs of at least 5% and possibly as much as 10%. This in turn would result in a diminution of profits of from three to five percentage points.

In 1983 the median pre-tax profit for printing ink companies in the U.S. was 4.5% of sales while the lower quartile earned only 2.4% on sales. Clearly a reduction in earnings of three to five percentage points would completely eliminate the profits of

25% of all U.S. printing ink companies and might even eliminate virtually all of the profits of as many as half of all printing ink companies in the U.S. Therefore, NAPIM submits that higher raw materials costs resulting from the proposed feedstock tax increases would result in a severe dislocation of the printing ink industry with probable plant closings and loss of jobs.

THREAT OF FOREIGN COMPETITION

As noted earlier, the proposed increases in feedstock taxes will weaken the position of U.S. industry versus foreign competition. Environmental pressures have been driving the pigments industry (a petrochemical dependent industry on which the printing ink industry depends) into the hands of foreign ownership so that a major portion of the U.S. organic pigments industry is now in European and Japanese hands. While most foreign owners are still continuing to produce pigments in the U.S., they have the capability of moving some of their product overseas when economic conditions may warrant. In times of shortages this situation compounds a serious threat to the well-being of the U.S. printing ink industry.

Since the feedstock tax authorized by CERCLA and the increase proposed under H.R. 5640 are charged only to the U.S. petroleum and petrochemicals industry, they represent a cost not borne by foreign manufacturers and further lessen the competitive position of the U.S. petrochemicals industry as well as those industries which depend on it as their source of raw materials. The weakening of the petrochemicals industry's raw materials. The weakening of the petrochemicals industry's competitive position versus foreign imports has also been reflected in the printing ink industry which has previously been relatively immune to foreign competition. In the last three years the industry has experienced sharp increases in printing ink imports from foreign manufacturers.

COMBINED WASTE-END FEEDSTOCK TAXES ARE DOUBLE TAXATION

The printing ink industry does not oppose the concept of a waste-end tax to support CERCLA and, in fact, feels that it is a reasonable concept. However, the industry does have serious concerns about the approach of combining substantial waste-end taxes with equally substantial feedstock taxes. This approach will create an unequitable tax burden for certain industries without distributing the burden to all industries which may be contributors to the hazardous waste disposal problem. This combination of taxes will result in double taxation for the petroleum industry and the industries which depend on it.

It is evident that feedstock taxes will be passed through to petrochemical consuming industries with the result that industries such as printing ink will be taxed twice for the same materials; once at the front-end and again at the waste-end. NAPIM submits that the imposition of waste-end taxes must be mitigated by some relief in feedstock taxes at least to the extent that feedstock taxes are not increased simultaneously with the imposition of new waste-end taxes as proposed in H.R. 5640.

While the waste-end tax of $50 per ton dry weight suggested by the Chemical Manufacturers Association appears to be a reasonable compromise, the Committee should note that petrochemical dependent industries would also be faced with raw material price increases due to the pass-along of the excessive feedstock taxes under H.R. 5640.

CONCLUSION

NAPIM asks that the Committee re-evaluate the potential economic impact of H.R. 5640 and reduce the unnecessarily high feedstock taxes proposed therein. We respectfully submit that the $50 per ton dry weight tax suggested by the Chemical Manufacturers Association would raise the needed funds to effectively administer CERCLA without imposing a substantial economic hardship on the many sectors of the chemical industry, including the printing ink industry, which are dependent on the petroleum and petrochemicals industries for their raw materials.

Respectfully submitted.

JAMES E. RENSON,
Executive Director.

SABER ENERGY, INC.,
Houston, TX, July 23, 1984.

Mr. JOHN J. SALMON,
Chief Counsel, Committee on Ways and Means, House of Representatives, Longworth House Office Building Washington, DC.

DEAR MR. SALMON: This letter will express Saber's opposition to the Superfund Reauthorization Bill introduced in the House of Representatives by Rep. James Florio (H.R. 5640) as inconsistent with the original legislative intent of Superfund, for providing importers of gasoline with a competitive advantage over domestic producers of gasoline, and for the negative impact this legislation would have on the U.S. balance of trade.

Departure from original legislative intent.—The original Superfund legislation was designed to distribute the tax imposed in a manner consistent with the amount of hazardous wastes generated. S. Rept. 96-848, 96th Congress, 2nd Session July 11, 1980, fairly reflects the intent of the Superfund Act as follows: "The initial allocation of fees between petrochemicals, inorganics, and oil approximately reflects the ratio of hazardous wastes generated." Seven-eighths of the total fund to be collected from industry, was to be distibuted such that primary petrochemicals would account for 65 percent of the industry fees; inorganic raw materials, 20 percent; and petroleum, 15 percent. The proposed regulations of the IRS issued on October 20, 1983, attempted to impose a mixed stream chemical tax on refining that would have changed the percentages collected from industry to 25 percent from primary petrochemicals, 7 percent from inorganics, and 68 percent from petroleum. The currently proposed legislation attempts to impose an equally disproportionate share of the tax on the refining industry that is not consistent with the volume of hazardous wastes generated by petroleum refining. It should be noted that small and independent refiners, least able to absorb increased costs, and constrained by market conditions from passing through such increases, will be hardest hit by H.R. 5640. Passage of this legislation will force the closing of many small and independent refineries, resulting in increased unemployment. As this bill is drafted, legislators have the unpleasant prospect of closing down the independent refining sector *and* increasing consumer costs. The only benefit to be derived from this bill is a temporary increase in Superfund collections, temporary because it is guaranteed to decrease the very tax base it purports to expand.

H.R. 5640 would additionally raise the tax on petroleum from .79 cents per barrel to 4.5 cents per barrel, imposing a tax increase of 3.71 cents per barrel, which is a 470 percent increase. This increase in petroleum tax alone would raise the cost of producing refined products an estimated 3.53 cents per barrel, or .084 cents per gallon (42 U.S. gals. per bbl.). Coupled with the mixed stream tax, estimated to add .5 cents per gallon, the resultant increase per gallon of gasoline would be .584 cents. As stated earlier, this increase cannot currently be passed through because of market conditions, and will force the closing of many small refiners that managed to remain afloat during the recent failure of small and independent refineries. When market conditions change such that these added costs can be passed through, the result will be an increase in consumer prices.

In summary, H.R. 5640 would place a disproportionate share of the Superfund burden on the refining industry. The mixed stream chemical tax alone would make the petroleum burden 68 percent of the industry total. Adding the increased tax on petroleum would push the percentage well above 70 percent. The refining industry, by EPA estimates, contributes roughly 15 percent of the total of hazardous wastes disposed of in the U.S. It is obvious from the above percentages that H.R. 5640 would impose an unjust and unreasonable tax on refining.

Mixed Stream Chemicals are not "used" by Refiners.—The term "taxable chemical" is explained more completely by reference to the legislative history of the current law, including both House and Senate debates of the original Superfund legislation. Following this guidance, a taxable chemical must meet two criteria: (1) It must be a chemical substance listed in Sec. 4661(b), and (2) it must be used as a feedstock.

While many of the components of a refinery mixed stream blended into gasoline meet the first test, they do not meet the second criteria, and are therefore exempt under the fuel exemption. Additionally, as reported by the Committee on Interstate and Foreign Commerce, H.R. 7020 retained the definition of a petrochemical feedstock as one used "primarily for the preparation of more complex chemicals." Sec. 3022(2). Further, Sec. 3052(b)(4) retained the exemption for chemicals used as a source of energy. As passed by the House, H.R. 7020 required that the substance be both a petrochemical *and* used as a feedstock to make more complex chemical substances. Refinery mixed streams pass in a closed environment from one unit to another to produce a blendstock for *use* as gasoline. It is clear that H.R. 5640 departs from the intention of the original Superfund legislation in that refinery mixed stream chemicals are not feedstocks. Further, the October 20, 1983 proposed regulations of the IRS states that a chemical will be considered used when any one of three things happen: (1) It is consumed, (2) its chemical composition is changed, or (3) it is essentially used as a catalyst.

The taxable chemical components of refinery mixed streams are blended for use as gasoline. It is clear then that the refiner who blends mixed stream components into gasoline does not "use" the chemicals, and that the use of the chemicals in gasoline takes place in the end user's vehicle.

H.R. 5640 would further burden refiners since it is the normal practice in refineries not to meter or extract mixed stream chemicals as the stream passes from one unit to another. To comply with H.R. 5640 would require that refiners separate the mixed streams, install metering devices to quantify the separate components, then recombine the stream for processing in the downstream unit. Alternatively, sampling and lab analysis of the mixed stream samples would be required that would also add operating costs and reduce the efficiency refiners have had to implement in order to survive. Metering devices cost upwards of $50,000, roughly equivalent to the cost of adding one laboratory technician to conduct sampling and analysis. The added costs are grossly unfair when compared to the EPA estimate of disposal of hazardous wastes by refiners of 15 percent of the national total.

Additionally, the mixed stream chemicals do not have the 90 percent purity used as the "watermark" of chemicals by the Chemical Manufacturers Association, and many of the refinery mixed stream chemicals are products of natural gas processing plants imported to the refinery for use as gasoline blendstocks. The price increase that would necessarily derive from H.R. 5640 passage would reduce demand and harm the natural gas industry, also an unfair and unintended effect of the original Superfund legislation.

In summary, passage of H.R. 5640 would place the major burden of hazardous waste site cleanup on refiners that proportionately generate only a samll amount of the hazardous materials disposed of and would harm the natural gas industry in a manner that is inconsistent with the intent of the original Superfund Act.

H.R. 5640 Aids Foreign Competitors of Domestic Gasoline Producers.—Assuming that the 4.5 cents per barrel tax on petroleum would also be applied to imported petroleum products only minimizes the injustice of this legislation. Domestic gasoline producers would still have an estimated increased cost to produce gasoline of .5 cents per gallon that benefits the foreign gasoline importer. Alternatively, imported gasoline would have to undergo a complete chemical analysis. It seems absurd to think that such an analysis would be performed for every shipment of imported gasoline, but to impose a tax on the components of domestically produced gasoline and not on those of imported gasoline, would obviously be unfair to domestic refiners. Such a tax advantage to foreign producers would make it extremely difficult for U.S. refiners to compete both in domestic and foreign markets, adversely affecting the U.S. balance of trade and leading to greater trade deficits.

In summary, passage of H.R. 5640 would cause harm to both U.S. refiners and gasoline producers, and would benefit foreign competition, worsening the U.S. balance of trade. It is inconceivable that these results are truly the desire of Congress.

CONCLUSION

The Department of Commerce estimates that for every U.S. refinery worker, eight to nine other jobs are created in the U.S. Any act or tax that causes the shutdown of even one refinery has a snowballing effect that negatively effects the U.S. economy. H.R. 5640 is a negative piece of legislation because it would impose a burden equal to or exceeding 70 percent of the total industry burden on an industry that generates only 15 percent of the hazard the Superfund was designed to alleviate. It further imposes a cost of operation on refiners that will ultimately cripple the industry.

We recognize the need to continue the beneficial work Superfund was designed to perform, but the present legislation is not the appropriate mechanism to accomplish that end.

Sincerely,

Martin P. Zanotti,
Executive Vice President and
Acting Chief Operating Officer.

STATEMENT OF THE SOCIETY OF INDEPENDENT GASOLINE MARKETERS OF AMERICA

The Society of Independent Gasoline Marketers of America ("SIGMA") submits the following comments on H.R. 5640, the "Superfund Expansion and Protection Act of 1984." SIGMA does not oppose the reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA" or "Superfund"), because the timely and cost-effective clean-up of abandoned and inactive waste sites deserves governmental action. However, SIGMA is concerned that H.R. 5640's proposed changes in the tax system to fund Superfund are neither economically efficient nor equitable.

Any modifications in Superfund's sources of revenues should be based on economic efficiency, demonstrated need, and equity based on a relationship between the problem and its cause. SIGMA specifically opposes the imposition of the "chemicals tax" (Internal Revenue Code section 4661) on certain listed components that are "mixed into gasoline." The levy of tonnage taxes on benzene, toluene, and zylene, which are necessary octane-enhancing components in gasoline, could create serious distortions in the marketplace, thereby threatening the competitive viability of independent gasoline marketers.

Proponents of the so-called "BTX tax" state that the chemicals tax on named components in gasoline is necessary to finance Superfund's clean-up of releases from underground storage tanks, which would become subject to Superfund under H.R. 5640. However, the removal of the "petroleum exclusion" in Superfund to regulate underground storage tank releases contravenes the conceptual scope of the Superfund program and is not the best approach to protecting the environment. Thus, statutory authority other than Superfund should be used to regulate tanks and the BTX tax should be modified accordingly. Such a more appropriate approach to this problem is contained in a Senate-passed amendment to the Resource Conservation and Recovery Act ("RCRA") reauthorization (S. 757) concerning underground storage tanks. In fact, the Senate's version in this area supports the deletion of tank provisions from H.R. 5640.

Introduction to SIGMA.—SIGMA is a national trade association of approximately 225 independent marketers and chain retailers of motor fuels. SIGMA's members market motor fuels in 50 states, and their sales of motor fuels represent approximately 14 percent of the gasoline sold to the retail market. SIGMA members directly own or control some 12,600 retail motor fuel outlets. SIGMA's members are among the most efficient retailers of motor fuels in the world. Their operating around the marketing concept of high volume/low margin, coupled with other marketing efficiencies, permits SIGMA's members to distribute motor fuels at the lowest possible price by minimizing the amount of fixed costs which must be recovered in each gallon of product sold. Private-brand marketers historically have served as the cutting edge in the retail market for motor fuels and, thereby, have proven themselves invaluable to cost-conscious consumers.

Reauthorization of Superfund should be deferred.—As noted above, SIGMA does not oppose the reauthorization of Superfund. An equitable and efficiently administered program to clean-up abandoned or inactive sites where hazardous substances threaten public health or the environment is a desirable governmental action. However, the present effort at reauthorization is premature in the absence of necessary information and further program experience, particularly when the current funding does not expire for a full year. Prudent management of the Superfund program dictates a careful assessment of the total funds necessary and the Environmental Protection Agency's ("EPA") annual funding requirements. Estimates of the total funds necessary are unclear because total clean-up costs and the portion of those costs to be met by federal taxes are uncertain, particularly if Congress directs an increase in the pace of site clean-ups by EPA. Moreover, EPA's clean-up efforts could be retarded by funding beyond EPA's capabilities to allocate, employ, and monitor the funds.

Information, essential to a reasoned analysis of the Superfund program, will soon be available. Section 301(a) of CERCLA requires that a comprehensive report be completed by December 11, 1984, including experiences with the implementation of Superfund, the effectiveness of the Hazardous Substances Response Trust Fund, recoveries from responsible parties, and future funding needs. EPA has said that the report will be completed by the deadline and will be submitted to the Congress along with the Administration's proposal for the extension of Superfund authorities. Additional information also is becoming available as a result of EPA's accelerated clean-up and enforcement activities under the direction of the Agency's Administrator, William D. Ruckelshaus. SIGMA believes that no legislative action need be taken at this time to extend or expand the funding of Superfund because of the time afforded by the current authorization, the need for a more accurate assessment of funding needs, and the availability of necessary information later this year.

Superfund tax system is neither economically efficient nor equitable.—The current Superfund tax system is neither economically efficient nor equitable and proposed tax changes in H.R. 5640 would make the system even less equitable. Under Superfund, current production is taxed to pay for past uncontrolled waste disposal practices. (Present and future waste disposal practices are addressed by RCRA.) Imposing the financial burden of cleaning up all hazardous wastes generated in the past on a limited group of taxpayers is not economically efficient because the amount of the tax paid by producers, users, and disposers is not related to the amount of waste that needs to be cleaned up.

The Superfund tax system is not equitable because the tax burden is borne by those who contributed little to the problems created by past disposal practices. For example, EPA estimates that petroleum refineries generate less than five percent of the hazardous wastes in the country. However, Internal Revenue Service ("IRS") information indicates that the crude oil tax (Internal Revenue Code Section 4611) accounts for 15 percent of the CERCLA taxes that have been raised. H.R. 5640's proposed sixfold increase in the petroleum tax (from 0.79 cent per barrel to 4.5 cents per barrel) would exacerbate this imbalance. Coupled with the proposed tax on benzene, toluene, and xylene mixed into gasoline, a House Energy and Commerce Committee staff estimate indicates that the petroleum industry's annual contribution to Superfund would increase sixteenfold while the total CERCLA fund would increase only fivefold.

The CERCLA section 301(a) study, due in December, is to include an analysis of the feasibility and desirability of different tax systems for financing Superfund response activities. A better basis for the tax system could be established if reauthorization of Superfund was delayed until this analysis is completed.

The tax on benzene, toluene, and xylene "mixed into gasoline" would distort the gasoline marketplace.—SIGMA opposes the imposition of the chemicals tax on any enumerated chemicals used in the manufacture of motor fuels. The proposed tax in H.R. 5640 would distort the gasoline market place because of its uneven effects on gasoline producers. In addition, it would impose tremendous administrative and compliance costs and would embroil gasoline producers in protracted disputes and litigation with the IRS over the interpretation and application of H.R. 5640's ambiguous tax provisions.

The inclusion in H.R. 5640 of tonnage taxes on benzene, toluene, and xylene "mixed into gasoline" is ambiguous depending on the interpretation of the phrase "mixed into gasoline." Benzene, toluene, and xylene are necessary octane-enhancers for gasoline. Crude oil contains some benzene, toluene, and xylene, but the quantities of these chemicals normally change when the crude oil is refined. Thus, some gasoline producers may have sufficent amounts of benzene, toluene, and xylene present in their gasoline streams without actively "mixing in" additional amounts of the pure chemicals. However, other gasoline producers may find it necessary to acquire and "mix in" benzene, toluene, and xylene in their blending process to produce gasoline with the necessary octane specifications. These gasoline producers would be adversely affected by the chemicals tax provisions in H.R. 5640 and could be seriously disadvantaged compared to other gasoline producers.

The potentially uneven application of the tax would distort the gasoline marketplace at a time when intense marketplace competition already has resulted in thin margins. It is well documented that a number of refineries, particularly small and independent ones, have closed since 1981. The uneven application of the chemicals tax, given the current market environment, could force more gasoline producers to leave the marketplace. Independent gasoline marketers rely heavily on varied sources of supplies to maintain their competitive viability. Further reductions in the number of suppliers, particularly independent refiners, would have severe consequences for many independent gasoline marketers unable to obtain competitively-priced product from remaining suppliers who also are their competitors.

Complex and expensive testing procedures would have to be instituted by gasoline producers to calculate their tax liabilities under the proposed legislation. These procedures would not produce more gasoline, which is manufactured to meet rigorous product quality standards before it is shipped to customers. These standards, however, do not provide quantity measurements of benzene, toluene, and xylene in the gasoline. Differences in refineries, crude oils, and production methods would make quantity estimates difficult, if not impossible. Such differences also would cause significant variations in tax liabilities, and the IRS would incur substantial administrative and testing costs to verify the amounts reported by gasoline producers. Thus, the ambiguous tax provisions and problems of measurement will create numerous differences between gasoline producers and the IRS, inevitably resulting in protracted and voluminous litigation.

Further, imposing a tax on enumerated chemicals mixed into gasoline would become effective at a time when more of these octane-enhancing chemicals will be needed to produce quality gasoline. EPA today proposed further reductions in and the ultimate ban on the use of lead in gasoline. This regulatory action will force an increase in the cost of the manufacture of gasoline at a time when the tax on the use of benzene, toluene, and xylene to enhance octane ratings also will impose additional costs on gasoline producers. Again, such increased costs may force certain gasoline suppliers out of business, thereby affecting the competitive viability of independent gasoline marketers.

Products stored in underground storage tanks are not superfund wastes.—Proponents of the chemicals tax on benzene, toluene, and xylene mixed into gasoline argue that the tax is necessary to fund response costs incurred by the regulation of underground storage tanks under Superfund. Section 101 of H.R. 5640 would limit the "petroleum exclusion" in CERCLA so that releases of "hazardous substances" from underground storage tanks and petroleum products which may have a significant adverse health effect would trigger Superfund responses.

The removal of the "petroleum exclusion" in Superfund to regulate underground storage tank releases contravenes the conceptual scope of the Superfund program and is not the best approach to protecting the environment, particularly when little data on tank leaks are available. Moreover, the removal of the petroleum exclusion would impose significant burdens on tank owners and operators, as well as EPA.

Superfund was not enacted to prevent, minimize, and clean-up valuable commodities in commerce—petroleum products and derivatives—released from an underground storage tank. Rather, the primary purpose of the Superfund law is to provide for the clean-up of hazardous waste at abandoned or inactive waste sites. Congress determined that past, uncontrolled dumping practices threaten the drinking, industrial, and irrigation water supplies upon which a majority of Americans rely. While some releases from underground storage tanks have caused localized problems, such incidences cannot be equated with those that led to the passage of Superfund.

Data on underground storage tank failures and potential leaks are extremely limited, and extrapolations from such information are questionable. Often quoted estimates of leaking tanks exceed the experiences of SIGMA members. Moreover, even if the same amounts of product were to leak in different areas, the consequences of such leaks would vary. The time required to detect a leak, the relevant soil conditions, the proximity of groundwater, and the characteristics of the aquifer are all factors that must be considered. Available technology and industry recommended practices incorporate these factors. As a result, only a very small percentage of tank leaks affect the groundwater. Instead, most leaks are contained within the soil and the immediate vicinity of the tank which leaked. Thus, before the vast and cumbersome Superfund machinery, intended to clean-up hazardous wastes at abandoned or inactive waste sites, is brought to bear upon underground storage tanks and the valuable commercial commodities they store, Congress should have more than anecdotal evidence to support the conclusion that underground storage tank leaks are a pandemic problem and a risk to the environment.

Superfund would impose tremendous liability and litigation burdens on tank owners and operators.—Removal of the petroleum exclusion in Superfund would impose substantial burdens on the economy-wide population of tank owners and operators, as well as EPA. The most onerous burden created by the extension of Superfund regulation to underground storage tanks is the extension of strict, joint, and several liability provisions to the commercial relationships involved with distribution and storage of products in underground tanks. Currently, Superfund imposes a strict liability standard and provides few meaningful defenses to potentially, responsible parties. Some courts have interpreted Superfund as allowing joint and several liability, leaving open the question of liability apportionment.

Since October of 1983, seven Federal district courts have issued opinions ruling that "joint and several" liability may be applied under Superfund as a matter of common law and appropriate circumstances. Thus, product suppliers could face enormous potential liability for product leaked from a customer's underground storage tank, even if the supplier was misled as to the condition of the tank. Strict, joint, and several liability provisions were not intended to extend to such commercial relationships. Unlike a contract for the disposal of hazardous waste, it is essential to recognize commercial realities in the movement of valuable commodities in commerce. Moreover, strict, joint, and several liability provisions remove incentives for many tank owners and operators to prevent and minimize releases because they can transfer costs for such releases to others. Further, by imposing joint and several liability, potentially responsible parties have no incentive to come forth, absent an enforcement action, to initiate a voluntary clean-up of an underground tank. This is unfortunate because it not only discourages responsible corporate behavior, but it also guarantees leak clean-ups will have to be initiated under adversarial conditions.

The extension of strict, joint, and several liability provisions to underground storage tanks would impact most severely on small businesses, such as independent gasoline marketers. The costs of such provisions cannot be internalized and must be passed on to customers in the prices of their goods and services. Moreover, in order to remain competitive, a small business might have to cut back on employment.

Superfund's notification requirements would create an administrative nightmare for SIGMA members and EPA. Estimates of the underground storage tank population range from two to four million. Leaks, dispensing spills, and even evaporative emissions greater than a designated "reportable quantity" ("RQ") would trigger an immediate notification of the release to EPA's National Response Center. For example, unless changed, the RQ for gasoline would be one pound. A gallon of gasoline weighs seven pounds. Thus, the smallest of releases would cause EPA to be inundated with a mountain of paper, particularly when an owner or operator would face severe penalties, including a jail sentence, for failure to report such releases.

Section 104 of CERCLA authorizes the President to clean-up the release of any hazardous substance unless he determines that the response action will be done properly by the owner or operator of the facility, or by any other responsible party. This authority obtains regardless of whether the release is above the RQ for the hazardous substance. The requirement that the President "pre-approve" a private party clean-up, even when only small quantities of the substance are released, will deter and protract expeditious clean-ups of small spills and leaks from underground storage tanks. This requirement only compounds the delay, and adds to the paperwork, that even the responsible owner or operator must endure to employ his or her own efforts to clean-up a release.

Superfund will not address adequately releases from unidentified sources.—Proponents of the extension of CERCLA to underground storage tanks seek to use Superfund as a statutory vehicle because they believe it is the only Federal law which permits EPA to address releases from unidentified underground tanks by allowing the Agency to clean-up the release and to recover later the response costs from responsible parties, if found. However, limitations on "removal" and "remedial" actions under Superfund restrict EPA's ability to address adequately such situations.

Removal actions can be conducted by EPA at any site, regardless of whether it is on a National Priority List ("NPL"). Such removal actions, however, cannot continue after $1 million has been spent or six months has elapsed, unless EPA finds that (1) continuation is immediately required to prevent, limit, or mitigate the emergency; (2) there is an immediate risk to public health, welfare, or the environment; and (3) assistance will not be otherwise provided on a timely basis.

EPA's hands are tied further by two restrictions on remedial actions. First, before EPA can undertake remedial actions, the State must enter into a contract or cooperative agreement with EPA for future maintenance and cost-sharing. Second, under the National Contingency Plan, remedial action, such as groundwater decontamination, can be undertaken on the NPL, a site must have received a hazardous ranking system score of at least 28.5 and must be designated by EPA through a rulemaking. Accordingly, Superfund is not the anticipated panacea for responding to releases from unidentified underground storage tanks.

The chemicals tax provisions in H.R. 5640 should be modified.—Based on the foregoing discussion, it is clear that Superfund is not the appropriate mechanism to address the issue of underground leaks. SIGMA believes that the issue largely was addressed last week when the Senate adopted a compromise underground storage tank amendment offered by Senator David F. Durenberger (R-Minn.) as part of its reauthorization of RCRA. Senator Durenberger's amendment creates a tank regulatory program which is totally outside of Superfund and which is to be based on adequate data from studies to be performed by EPA. Further, alternatives to Superfund exist for situations involving unidentified releases. For example, a separate response fund could be structured using provisions for alternate water supplies provided in Clean Water Act legislation recently passed by the House, plus an appropriate supplemental funding mechanism.

SIGMA strongly recommends that the underground storage tank issue be decoupled from Superfund and the relevant provisions be dropped from H.R. 5640. Accordingly, the chemicals tax on enumerated chemicals mixed into gasoline should be modified. SIGMA is willing to discuss and work cooperatively with members of the Committee and their staffs in pursuing tank alternatives apart from Superfund.

SIGMA appreciates this opportunity to present its views.

SUN REFINING & MARKETING CO.,
Philadelphia, PA, July 25, 1984.

Hon. DAN ROSTENKOWSKI,
Chairman, Ways and Means Committee, House of Representatives, Washington, DC.

DEAR CONGRESSMAN ROSTENKOWSKI: Sun Refining and Marketing Company, a subsidiary of the Sun Company, appreciates the opportunity to submit written comments concerning H.R. 5640, the Superfund Expansion and Protection Act of 1984. It is our understanding that the House Ways and Means Committee has jurisdiction over the revenue aspects of H.R. 5640. We are concerned about the proposed size of Superfund and the tax provisions and will address our comments primarily to these issues.

First and foremost, Sun Company supports the continuation of the Federal Superfund program. The job of cleaning up abandoned hazardous disposal sites is one of the most important environmental problems this country faces. The longer these sites remain unattended, the greater the potential risk to public health and our environment. This cleanup may necessitate more than the $307 million per year in current industry Superfund taxes. The EPA report mandated by Section 301(a) of the Hazardous Substance Response Revenue Act due by December, 1984, should shed more light on the required funding. Whatever the level of funding, it should be based on EPA's ability to run an efficient and effective cleanup. To force funds upon EPA in excess of what it feels it can spend wisely is pure folly.

A major concern of Sun Company is the source of revenue for Superfund. Sun believes the Superfund tax should be broadened to lessen the inequitable burden placed upon the petroleum industry. The cleanup of hazardous waste disposal sites is a societal problem, and the financial responsibility for this cleanup should be more equitably spread via a broad-based tax. Today's companies are not necessarily yesterday's polluters, and it is improper to tax the petroleum industry to pay far in excess of its share of cleanup activities when many industries other than ours have contributed to the past waste site problems. If feedstocks and petrochemicals continue to be taxed within Superfund, the "fuels exemption" clarification passed as a technical amendment within the recent Deficit Reduction Bill should be maintained—a position consistent with your Committee's interpretation of the original intent of Superfund legislation. Specifically, the "mixed into fuels" provisions of Title V, Section 504(a), must be eliminated. Finally, if any tax is imposed on domestic products, a corresponding tax must be placed on imports so that foreign manufacturers will not gain an unfair advantage in the marketplace.

Sun is conerned with other aspects of H.R. 5640:

Title II of H.R. 5640 would create a new federal tort law that would be duplicative and unnecessary. There is no evidence to suport that a new cause of action is required. Title II shold not be enacted.

Title IV would regulate leaking storage tanks. If it is deemed that leaking underground storage tanks present a sufficient risk to warrant legislation, such legislation should be independent of CERCLA. Funding to clean orphaned spills and liability provisions for responsible parties should be established by separate statute which is uniquely focused on pollution from these sources. Title IV should not be enacted in H.R. 5640.

Again, Sun fully supports the reauthorization of the Federal Superfund program. However, it should be reauthorized at a funding level that is efficient, supportable, and equitable to all.

I would be glad to confer with you or your staff on this issue at your convenience.

Sincerely,

J. V. D. FEAR,
Vice President, Fuels Division.

STATEMENT OF UNITED STATES BORAX & CHEMICAL CORP.

POSITION ON SECTION 504 OF H.R. 5640

U.S. Borax opposes the inclusion of boron trioxide in the list of chemicals subject to the environmental tax proposed in Section 504 of H.R. 5640.

Boron trioxide, more commonly called boric oxide or anhydrous boric acid:

is not a hazardous substance as designated in Section 311 (b)(2)(A) of the Federal Water Pollution Control Act;

does not present substantial damage to the public health or welfare or the environment under Sect. 102 of CERCLA;

is not listed as a hazardous waste under Section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA or the Solid Waste Disposal Act);

is not considered a toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act;

is not listed as a hazardous air pollutant under Section 112 of the Clean Air Act;

is not considered an imminent hazard in Section 7 of the Toxic Substances Control Act;

does not qualify as a pollutant nor contaminant as defined in Section 102 (a)(1) of H.R. 5640, and;

is not listed in the annual report of carcinogens by the U.S. dept. of Health and Human Services and is not under consideration by the National Toxicology Program.

The Section 504 subject list of chemicals proposed for an environmental tax previously was proposed in H.R. 4813 (Florio), H.R. 5321 (Florio and H.R. 4915 (Lent) and is reported by EPA's Office of Solid Waste as a draft of a list entitled "Potential Taxable Chemicals" and is part of a current study by said office.

The list is clearly marked: "Draft (Do Not Cite or Quote)—For Discussion Purposes Only." This study is reported to have investigated 881 waste sites in the U.S. and the chemicals listed were detected during this investigation.

The draft does not indicate the number of sites in which boron trioxide is alleged to be found, nor the quantity of boron trioxide found. Since boron compounds are found in nature as well as in many common products, it is imperative that such an investigation determine the actual source of the boron trioxide (in what compound) and the degree of toxicity of such compound. The proposed environmental tax should not be imposed without the supporting data of such a determination.

U.S. Borax is one of the world's largest producers of boron chemicals. Boric oxide is an ubiquitous chemical and is used in a wide range of industries—glass manufacturing, soldering flux, abrasives and refractories, to name a few.

In summary, it is our position that there is no scientific or economic justification for taxing boron trioxide as a hazardous substance, a hazardous pollutant or a hazardous contaminant and it should be deleted from this amended list of chemical substances proposed in Section 504 of H.R. 5640.

○